

## PATENT ABSTRACTS OF JAPAN

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**(54) RETRIEVAL SYSTEM, RETRIEVING DEVICE AND METHOD, DISPLAYING METHOD FOR RETRIEVED RESULT, TERMINAL EQUIPMENT, AND RECORDING MEDIUM**

(57)Abstract:

PROBLEM TO BE SOLVED: To make it possible to retrieve broadcasted contents even when an accurate keyword is unknown.

SOLUTION: A user receives contents broadcasted from a broadcasting station 12. When the user depresses a button 20 on a bookmarker 4, time information is stored. The time information is transferred to a retrieval 10 through a gateway device 11. The engine retrieves contents broadcasted at time on the basis of the time information and returns retrieved results possibly received by the user to the device 11. The user suitably selects one of the retrieved results, and when the contents are a musical piece, listens the program through the device 11. When the contents are a commercial(CM) program, a means for moving to the site 501 of an advertiser 500 is displayed on the device 11. The user can display the site 501 only by executing operation based on the display and purchase a commodity. Thus the user can obtain necessary information only by depressing the button 20 on the bookmarker 4 at the time of listening a broadcast.

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## CLAIMS

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[Claim(s)]

[Claim 1] A storage means to memorize the information corresponding to the time of day when contents were broadcast at least by predetermined actuation in the retrieval system which searches the broadcast contents, An input unit equipped with the 1st means of communications which transmits outside the information corresponding to the above-mentioned time of day memorized by the above-mentioned storage means, An are recording means by which the information and the broadcast time of day of these contents which show contents are matched and accumulated, Retrieval equipment equipped with a retrieval means to retrieve the information which shows the above-mentioned contents accumulated in the above-mentioned are recording means based on the information corresponding to time of day, The 2nd means of communications which receives the information corresponding to the above-mentioned time of day transmitted from the above-mentioned input unit by the 1st means of communications of the above, The 3rd means of communications which receives the result of the above-mentioned retrieval which transmitted the information corresponding to the above-mentioned time of day received by the 2nd means of communications of the above to the above-mentioned retrieval equipment, and was transmitted from the above-mentioned retrieval equipment, The retrieval system characterized by having a terminal unit equipped with a display means to perform the display based on the information corresponding to the above-mentioned time of day received by the 2nd means of communications of the above, and the display based on the result of the above-mentioned retrieval by the above-mentioned retrieval equipment.

[Claim 2] The retrieval system characterized by including the information relevant to

contents in the information which shows the above-mentioned contents in a retrieval system according to claim 1.

[Claim 3] It is the retrieval system characterized by to transmit to the above-mentioned terminal unit as a result of the above-mentioned retrieval of the information which shows the above-mentioned contents broadcast at the time of day shown using the information corresponding to the above-mentioned time of day, and the information which shows 1 or two or more contents which were broadcast before in time than these contents based on the information on a retrieval system according to claim 1 and corresponding to the above-mentioned time of day in the above-mentioned retrieval equipment.

[Claim 4] The retrieval system characterized by making it move to other sites which can purchase the contents obtained by the result of the above-mentioned retrieval by performing predetermined actuation to the above-mentioned terminal unit in a retrieval system according to claim 1 according to the display based on the result of the above-mentioned retrieval of the above-mentioned retrieval means displayed on the above-mentioned display means.

[Claim 5] It is the retrieval system characterized by indicating that the information corresponding to the above-mentioned time of day moves to the above-mentioned terminal unit from the above-mentioned input unit virtually when the above-mentioned display means receives the information corresponding to the above-mentioned time of day by the 2nd means of communications of the above in a retrieval system according to claim 1.

[Claim 6] In a retrieval system according to claim 5 the above-mentioned input unit It has further other display means to perform the display according to the number of cases of the information corresponding to the above-mentioned time of day memorized by the above-mentioned storage means. the above by the above-mentioned terminal unit at the time of the 2nd means of communications of the above receiving the information corresponding to the above-mentioned time of day -- the retrieval system characterized by making mutually an imagination display and the display according to the number of cases of the above-mentioned information by the above-mentioned input unit in relation.

[Claim 7] The retrieval system characterized by to increase the display corresponding to the number of cases of the information corresponding to the above-mentioned time of day displayed on the above-mentioned display means with which the above-mentioned terminal unit is equipped when the above-mentioned number of cases of the display corresponding to the number of cases of the information corresponding to the above-mentioned time of day displayed on a display means besides the above decreased in the retrieval system according to claim 6.

[Claim 8] It is the retrieval system characterized by being the information terminal unit with which the above-mentioned terminal unit is installed for the public in a retrieval system according to claim 1.

[Claim 9] It is the retrieval system characterized by the above-mentioned terminal unit consisting of a personal computer in a retrieval system according to claim 1.

[Claim 10] It is the retrieval system characterized by the above-mentioned contents being musical pieces in a retrieval system according to claim 1.

[Claim 11] In a retrieval system according to claim 10 the above-mentioned terminal unit By performing predetermined actuation according to the display based on the result of the above-mentioned retrieval of the above-mentioned retrieval means which has further a voice playback means to reproduce voice data, and was displayed on the above-mentioned display means The retrieval system characterized by reproducing the above-mentioned voice data which required the voice data corresponding to the musical piece obtained by the result of the above-mentioned retrieval from the above-mentioned retrieval equipment, and was transmitted from the above-mentioned retrieval equipment with the above-mentioned voice playback means.

[Claim 12] It is the retrieval system characterized by the above-mentioned contents being goods information in a retrieval system according to claim 1.

[Claim 13] It is the retrieval system characterized by having further an interface means by which the broadcast time of day of the information which shows the above-mentioned contents by which the above-mentioned retrieval equipment was accumulated in the above-mentioned are recording means in the retrieval system according to claim 1, and/or the above-mentioned contents can be changed from the exterior filtered by predetermined.

[Claim 14] It is the retrieval system characterized by what the above-mentioned input unit has further a program store means by which the control program which controls self is memorized, in a retrieval system according to claim 1, and the above-mentioned control program is transmitted to the above-mentioned input unit from the above-mentioned terminal unit by the 1st and 2nd means of communications of the above, and is memorized by the above-mentioned program store means.

[Claim 15] It is the retrieval system characterized by for the above-mentioned control program being transmitted to the above-mentioned terminal unit from the above-mentioned retrieval equipment in a retrieval system according to claim 14 by the 3rd means of communications of the above, and being further transmitted to the above-mentioned input unit from this terminal unit.

[Claim 16] It is the retrieval system characterized by for the above-mentioned terminal unit having a connecting means linked to a predetermined network further in a retrieval system according to claim 14, transmitting the above-mentioned control program to this terminal unit through the above-mentioned predetermined network connected to the above-mentioned terminal unit by the above-mentioned connecting means, and being further transmitted to the above-mentioned input unit from this terminal unit.

[Claim 17] It is the retrieval system which it has further the read-out means which

reads the data with which the above-mentioned terminal unit was recorded on the predetermined record medium in the retrieval system according to claim 14, and reading appearance of the above-mentioned control program is carried out with the above-mentioned read-out means from the above-mentioned predetermined record medium, and is characterized by being transmitted to the above-mentioned input unit.

[Claim 18] The 1st means of communications which receives the time information corresponding to predetermined time of day from an input unit, and transmits the information corresponding to the above-mentioned time of day outside in the terminal unit which directs retrieval of the broadcast contents, To the retrieval equipment with which the information which shows the above-mentioned contents was retrieved based on the information corresponding to time of day from an are recording means by which the information and the broadcast time of day of these contents which show contents are matched and accumulated The 2nd means of communications which receives the result of the above-mentioned retrieval which transmits the information corresponding to the above-mentioned time of day received by the 1st means of communications of the above, and was transmitted from the above-mentioned retrieval equipment, The terminal unit characterized by having a display means to perform the display based on the information corresponding to the above-mentioned time of day received by the 1st means of communications of the above, and the display based on the result of the above-mentioned retrieval by the above-mentioned retrieval equipment.

[Claim 19] The terminal unit characterized by including the information relevant to contents in the information which shows the above-mentioned contents in a terminal unit according to claim 18.

[Claim 20] The terminal unit characterized by to be displayed the information which shows the above-mentioned contents broadcast in a terminal unit according to claim 18 at the time of day shown using the information corresponding to the above-mentioned time of day, and the information which show 1 or two or more contents broadcast before in time than these contents on the above-mentioned display means as a result of retrieval by the above-mentioned retrieval equipment made based on the information corresponding to the above-mentioned time of day of 1.

[Claim 21] The terminal unit characterized by making it move to other sites which can purchase the contents obtained by the result of the above-mentioned retrieval by performing predetermined actuation in a terminal unit according to claim 18 according to the display based on the result of the above-mentioned retrieval of the above-mentioned retrieval means displayed on the above-mentioned display means.

[Claim 22] It is the terminal unit characterized by indicating that the information corresponding to the above-mentioned time of day is moved from the above-mentioned input unit virtually when the above-mentioned display means receives the information corresponding to the above-mentioned time of day from the above-mentioned input unit in a terminal unit according to claim 18.

[Claim 23] The display according to the number of cases of the above-mentioned information by the above-mentioned input unit displayed on other display means to perform the display according to the number of cases of the information corresponding to the above-mentioned time of day memorized in the terminal unit according to claim 22 by the above-mentioned storage means with which the above-mentioned input unit is equipped, the above -- the terminal unit characterized by being made in relation mutually [ a display / when an imagination display and the display according to the number of cases of the above-mentioned information by the above-mentioned input unit receive the information corresponding to the above-mentioned time of day from the above-mentioned input unit ].

[Claim 24] The retrieval system characterized by increasing the display corresponding to the number of cases of the information corresponding to the above-mentioned time of day displayed on the above-mentioned display means when this number of cases of the display corresponding to the number of cases of the information corresponding to the above-mentioned time of day displayed on a display means besides the above of the above-mentioned input unit decreased in the terminal unit according to claim 23.

[Claim 25] The terminal unit characterized by being the information terminal unit installed for the public in a terminal unit according to claim 18.

[Claim 26] The terminal unit characterized by consisting of a personal computer in a terminal unit according to claim 18.

[Claim 27] In a terminal unit according to claim 18 the above-mentioned contents It is a musical piece and the above-mentioned terminal unit is performing predetermined actuation according to the display based on the result of the above-mentioned retrieval of the above-mentioned retrieval means which has further a voice playback means reproducing voice data, and was displayed on the above-mentioned display means. The terminal unit characterized by reproducing the above-mentioned voice data which required the voice data corresponding to the musical piece obtained by the result of the above-mentioned retrieval from the above-mentioned retrieval equipment, and was transmitted from the above-mentioned retrieval equipment with the above-mentioned voice playback means.

[Claim 28] The terminal unit characterized by transmitting the control program for controlling the above-mentioned input unit to the above-mentioned input unit by the 1st means of communications of the above in a terminal unit according to claim 18.

[Claim 29] It is the terminal unit characterized by the above-mentioned control program being transmitted from the above-mentioned retrieval equipment in a terminal unit according to claim 18 by the 2nd means of communications of the above, and making it transmit to the above-mentioned input unit further.

[Claim 30] It is the terminal unit characterized by having a connecting means linked to a predetermined network further in a terminal unit according to claim 18, and the above-mentioned control program being transmitted from the above-mentioned

predetermined network by the above-mentioned connecting means, and making it transmit to the above-mentioned input unit further.

[Claim 31] It is the terminal unit which it has further the read-out means which reads the data recorded on the predetermined record medium in a terminal unit according to claim 18, and reading appearance of the above-mentioned control program is carried out with the above-mentioned read-out means from the above-mentioned predetermined record medium, and is characterized by being transmitted to the above-mentioned input unit.

[Claim 32] A storage means to memorize the time information corresponding to predetermined time of day by predetermined actuation in the terminal unit which directs retrieval of the broadcast contents, To the retrieval equipment with which the information which shows the above-mentioned contents was retrieved based on the information corresponding to time of day from an are recording means by which the information and the broadcast time of day of these contents which show contents are matched and accumulated The means of communications which receives the result of the above-mentioned retrieval which transmitted the information corresponding to the above-mentioned time of day memorized for the above-mentioned storage means, and was transmitted from the above-mentioned retrieval equipment, The terminal unit characterized by having a display means to perform the display based on the information corresponding to the above-mentioned time of day memorized by the above-mentioned storage means, and the display based on the result of the above-mentioned retrieval by the above-mentioned retrieval equipment.

[Claim 33] The terminal unit characterized by to be displayed the information which shows the above-mentioned contents broadcast in a terminal unit according to claim 32 at the time of day shown using the information corresponding to the above-mentioned time of day, and the information which show 1 or two or more contents broadcast before in time than these contents on the above-mentioned display means as a result of retrieval by the above-mentioned retrieval equipment made based on the information corresponding to the above-mentioned time of day of 1.

[Claim 34] In a terminal unit according to claim 32 the above-mentioned contents It is a musical piece and the above-mentioned terminal unit is performing predetermined actuation according to the display based on the result of the above-mentioned retrieval of the above-mentioned retrieval means which has further a voice playback means reproducing voice data, and was displayed on the above-mentioned display means. The terminal unit characterized by reproducing the above-mentioned voice data which required the voice data corresponding to the musical piece obtained by the result of the above-mentioned retrieval from the above-mentioned retrieval equipment, and was transmitted from the above-mentioned retrieval equipment with the above-mentioned voice playback means.

[Claim 35] The retrieval equipment carry out [ having made the information which has a communication link interface for receiving the time information corresponding to

predetermined time of day, and the identification information of contents, and shows the above-mentioned contents based on the time information corresponding to the time of day which carried out / above-mentioned / reception, and the identification information of the above-mentioned contents from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated in the retrieval equipment with which the broadcast contents search, and an external device search, and ] as the description.

[Claim 36] Retrieval equipment characterized by transmitting a retrieval result to the device of the above-mentioned exterior through the above-mentioned communication link interface further in retrieval equipment according to claim 35.

[Claim 37] The step of the storage which memorizes the information corresponding to the time of day when contents were broadcast at least for a storage means by predetermined actuation of an input unit in the search method which searches the broadcast contents, The step of the 1st communication link which transmits outside the information corresponding to the above-mentioned time of day memorized by the above-mentioned storage means, The step of the retrieval which retrieves the information which shows the above-mentioned contents which the information and the broadcast time of day of these contents which show contents were matched, were accumulated in the are recording means, and were accumulated in the above-mentioned are recording means based on the information corresponding to time of day with retrieval equipment, The step of the 2nd communication link which receives the information corresponding to the above-mentioned time of day transmitted by the step of a communication link of the above 1st from the above-mentioned input unit, The step of the 3rd communication link which receives the result of the above-mentioned retrieval which transmitted the information corresponding to the above-mentioned time of day received by the step of a communication link of the above 2nd to the above-mentioned retrieval equipment, and was transmitted from the above-mentioned retrieval equipment, The search method characterized by the thing which perform the 2nd display based on the result of the above-mentioned retrieval by the step and the above-mentioned retrieval equipment of the 1st display which performs the 1st display based on the information corresponding to the above-mentioned time of day received by the step of a communication link of the above 2nd, and for which it has the step of the 2nd display.

[Claim 38] The receiving step which receives the time information corresponding to predetermined time of day, and the identification information of contents from an external device in the search method which searches the broadcast contents, The retrieval step which retrieves the information which shows the above-mentioned contents based on the time information corresponding to the time of day which carried out [ above-mentioned ] reception, and the identification information of the above-mentioned contents from the database with which the information and the broadcast time of day of these contents which show contents are matched and



accumulated, The search method characterized by having the transfer step which transmits the retrieval result searched in the above-mentioned retrieval step to the device of the above-mentioned exterior.

[Claim 39] In the method of presentation of the retrieval result of the broadcast contents in a terminal unit The 1st communication link step which receives the time information corresponding to predetermined time of day from an input unit, The 2nd communication link step which transmitted the information corresponding to the above-mentioned time of day outside, To the retrieval equipment with which the information which shows the above-mentioned contents was retrieved based on the information corresponding to time of day, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated The 3rd communication link step which transmits the information corresponding to the above-mentioned time of day received at the communication link step of the above 1st, The 4th communication link step which receives the result of the retrieval transmitted from the above-mentioned retrieval equipment, The display based on the information corresponding to the above-mentioned time of day received by the communication link step of the above 1st, The method of presentation of the retrieval result of the broadcast contents in the terminal unit characterized by having the display step which performs the display based on the result of the above-mentioned retrieval received by the communication link step of the above 4th.

[Claim 40] In the method of presentation of the retrieval result of the broadcast contents in a terminal unit The storage step which memorizes the time information corresponding to predetermined time of day by predetermined actuation, To the retrieval equipment with which the information which shows the above-mentioned contents was retrieved based on the information corresponding to time of day, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated The 1st communication link step which transmits the information corresponding to the above-mentioned time of day memorized in the above-mentioned storage step, The 2nd communication link step which receives the result of the above-mentioned retrieval transmitted from the above-mentioned retrieval equipment, The method of presentation of the retrieval result of the broadcast contents in the terminal unit characterized by having the display step which performs the display based on the information corresponding to the above-mentioned time of day memorized by the above-mentioned storage means, and the display based on the result of the above-mentioned retrieval received in the communication link step of the above 2nd.

[Claim 41] It is the record medium which recorded the control program for displaying the retrieval result of contents in a terminal unit. Make the time information corresponding to predetermined time of day receive from an input unit, and the information corresponding to the above-mentioned time of day is made to transmit

outside. To the retrieval equipment with which the information which shows the above-mentioned contents was retrieved based on the information corresponding to time of day, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated The record medium which recorded the control program for displaying the retrieval result of contents in the terminal unit characterized by displaying the result of the above-mentioned retrieval which was made to receive the result of the retrieval which was made to transmit the information corresponding to the above-mentioned time of day, and was transmitted from the above-mentioned retrieval equipment, and was received at least.

[Claim 42] It is the record medium which recorded the control program for displaying the retrieval result of contents in a terminal unit. To the retrieval equipment with which the information which shows the above-mentioned contents was retrieved based on the information corresponding to time of day from the database with which the information and the broadcast time of day of these contents which are made to memorize the time information corresponding to predetermined time of day by predetermined actuation, and show contents are matched and accumulated The result of the above-mentioned retrieval which was made to transmit the information corresponding to the memorized above-mentioned time of day, and was transmitted from the above-mentioned retrieval equipment is made to receive. The record medium which recorded the control program for displaying the retrieval result of contents in the terminal unit characterized by displaying the result of the above-mentioned retrieval by the above-mentioned retrieval equipment at least.

[Claim 43] It is the record medium which recorded the control program for input units which inputs the information corresponding to time of day into retrieval equipment. The above-mentioned time information which was made to memorize the time information which shows predetermined time of day by actuation of a user, and was memorized is made to transmit outside. To the retrieval equipment with which the information which shows contents is retrieved based on the time information it was broadcast that contents were, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated The record medium which recorded the control program for the input units for making the information corresponding to time of day input.

[Claim 44] It is the record medium which recorded the control program for input units characterized by making the display which shows the number of cases of the above-mentioned time information the above-mentioned program was further remembered to be in the record medium according to claim 43 perform.

[Claim 45] It is the record medium which recorded the control program for input units which has the counter which operates with a predetermined clock and inputs the information corresponding to time of day into retrieval equipment. The counted value of the above-mentioned counter at the time of predetermined is made to memorize

by actuation of a user. To the retrieval equipment with which the information which shows contents is retrieved based on the time information it was broadcast that contents were from the database with which the information and the broadcast time of day of these contents which are made to transmit the memorized above-mentioned counted value outside, and show contents are matched and accumulated The record medium which recorded the control program for the input units for making the information corresponding to time of day input.

[Claim 46] It is the record medium which recorded the control program for input units characterized by making the display which shows the number of cases of the above-mentioned counted value the above-mentioned program was further remembered to be in the record medium according to claim 45 perform.

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## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the retrieval system which retrieves the broadcast information after that broadcast and can acquire it exactly, retrieval equipment, a search method and the method of presentation of a retrieval result, a terminal unit, and a record medium.

[0002]

[Description of the Prior Art] The database system with which the data which were stored on the computer system and put in a database from the former are searched existed. The user operated the terminal unit directly connected to database system in the network, and had acquired required information. For example, a user inputs the keyword considered to be suitable from a terminal unit. Based on the inputted keyword, it refers to database system, and a user is provided with a retrieval result through a terminal unit. When the offered information is a large number, a user can perform retrieval which set up and narrowed down the keyword further to the offered information.

[0003] Here, the case where a user searches music data is considered using the database system which stored music data. A user can know the title information on CD (Compact Disc) that the desired musical piece was recorded for example, based on the retrieval result etc., and can make it the reference at the time of purchasing the CD. Here, music data are the information about a musical piece, and it consists of each information, such as musical piece name, player name, inclusion album name, i.e., title of Music CD, announcement year, and sale origin. The voice data of a musical piece itself may be included in music data. In database system, subordinate

information on the music data, such as a player name of the musical piece, a title, and an inclusion album name, is partly set up as a keyword as opposed to one music data.

[0004] For example, a user is pleased in the musical piece which was flowing by the radio broadcasting by chance, and suppose that a user wants to acquire information about the musical piece. In that case, a user searches a musical piece after the broadcast using a music database which was mentioned above. For example, it searches by setting up a keyword based on the accompanying information on the musical piece obtained by introduction of announcer etc. broadcast with the musical piece.

[0005]

[Problem(s) to be Solved by the Invention] The result expected that a keyword is not inputted exactly is not obtained in the conventional music database mentioned above. Therefore, in the former, when a user searched and the accompanying information on the musical piece broadcast with the musical piece included in mind etc. was forgotten, there was a trouble that the information on target could not be acquired.

[0006] Moreover, it always walks around with a terminal unit for a user to search a music database, and referring to this terminal unit, whenever the musical piece included in mind flows by the radio broadcasting is also considered. However, when it was heard from the middle of a user being a musical piece and the musical piece was pleased, since accompanying information on the musical piece was not able to be known, the user had the trouble of not knowing anything I may input as a keyword also for referring to the terminal unit for retrieval.

[0007] Moreover, for the reason, the contents provider who sells a musical piece or CD had the trouble that it could not be directly connected with the sales of contents easily, although the musical piece is passed by the radio broadcasting with much trouble.

[0008] Furthermore, in digital broadcast, also making accompanying information superimpose on the music data broadcast is considered. The information about the musical piece it was broadcast by doing in this way that a user can come to hand with digital data. However, in this case, by the broadcasting station side, accompanying information needed to be made to create and superimpose for every music data which transmits, and there was a trouble that a big burden was placed on a broadcasting station side. Moreover, the user side also had the trouble that it was necessary to prepare the receiving set of a configuration so that the accompanying information on which it was superimposed may be taken out.

[0009] Therefore, the object of this invention is to offer the retrieval system which enabled it to search them even if an exact keyword did not understand the broadcast contents, retrieval equipment, a search method and the method of presentation of a retrieval result, a terminal unit, and a record medium.

[0010]

[Means for Solving the Problem] In the retrieval system which searches the broadcast

contents in order that this invention may solve the technical problem mentioned above A storage means to memorize the information corresponding to the time of day when contents were broadcast at least by predetermined actuation, An input unit equipped with the 1st means of communications which transmits outside the information corresponding to the time of day memorized by the storage means, An are recording means by which the information and the broadcast time of day of contents which show contents are matched and accumulated, Retrieval equipment equipped with a retrieval means to retrieve the information which shows the contents accumulated in the are recording means based on the information corresponding to time of day, The 2nd means of communications which receives the information corresponding to the time of day transmitted by the 1st means of communications from the input unit, The 3rd means of communications which receives the result of the retrieval which transmitted the information corresponding to the time of day received by the 2nd means of communications to retrieval equipment, and was transmitted from retrieval equipment, It is the retrieval system characterized by having a terminal unit equipped with a display means to perform the display based on the information corresponding to the time of day received by the 2nd means of communications, and the display based on the result of retrieval by retrieval equipment.

[0011] Moreover, this invention is set to the terminal unit which directs retrieval of the broadcast contents. The information corresponding to the time of day when contents were broadcast at least is memorized for a storage means by predetermined actuation. The 1st means of communications which receives the information corresponding to time of day transmitted from the input unit which transmitted outside the information corresponding to the time of day memorized by the storage means, To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day from an are recording means by which the information and the broadcast time of day of contents which show contents are matched and accumulated The 2nd means of communications which receives the result of the retrieval which transmitted the information corresponding to the time of day received by the 1st means of communications, and was transmitted from retrieval equipment, It is the terminal unit characterized by having a display means to perform the display based on the information corresponding to the time of day received by the 1st means of communications, and the display based on the result of retrieval by retrieval equipment.

[0012] Moreover, this invention is set to the terminal unit which directs retrieval of the broadcast contents. A storage means to memorize the information corresponding to the time of day when contents were broadcast at least by predetermined actuation, To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day from an are recording

means by which the information and the broadcast time of day of contents which show contents are matched and accumulated. The means of communications which receives the result of the retrieval which transmitted the information corresponding to the time of day memorized for the storage means, and was transmitted from retrieval equipment, It is the terminal unit characterized by having a display means to perform the display based on the information corresponding to the time of day memorized by the storage means, and the display based on the result of retrieval by retrieval equipment.

[0013] Moreover, this invention is set to the retrieval equipment with which the broadcast contents are searched. The database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated, It has a communication link interface for receiving the time information corresponding to predetermined time of day, and the identification information of contents from an external device. It is retrieval equipment characterized by retrieving the information which shows contents based on the time information corresponding to the received time of day, and the identification information of contents.

[0014] Moreover, this invention is set to the search method which searches the broadcast contents. The step of the storage which memorizes the information corresponding to the time of day when contents were broadcast at least for a storage means by predetermined actuation of an input unit, The step of the 1st communication link which transmits outside the information corresponding to the time of day memorized by the storage means, The step of the retrieval which retrieves the information which shows the contents which the information and the broadcast time of day of contents which show contents were matched, were accumulated in the are recording means, and were accumulated in the are recording means based on the information corresponding to time of day with retrieval equipment, The step of the 2nd communication link which receives the information corresponding to the time of day transmitted by the step of the 1st communication link from the input unit, The step of the 3rd communication link which receives the result of the retrieval which transmitted the information corresponding to the time of day received by the step of the 2nd communication link to retrieval equipment, and was transmitted from retrieval equipment, It is the search method characterized by the thing which perform the 2nd display based on the result of the retrieval by the step and retrieval equipment of the 1st display which performs the 1st display based on the information corresponding to the time of day received by the step of the 2nd communication link, and for which it has the step of the 2nd display.

[0015] Moreover, this invention is set to the search method which searches the broadcast contents. The receiving step which receives the time information corresponding to predetermined time of day, and the identification information of contents from an external device, The retrieval step which retrieves the information which shows contents based on the time information corresponding to the time of day

received from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated, and the identification information of contents, It is the search method characterized by having the transfer step which transmits the retrieval result searched in the retrieval step to an external device.

[0016] Moreover, this invention is set to the method of presentation of the retrieval result of the broadcast contents in a terminal unit. The 1st communication link step which receives the time information corresponding to predetermined time of day from an input unit, The 2nd communication link step which transmitted the information corresponding to time of day outside, To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated The 3rd communication link step which transmits the information corresponding to the time of day received at the 1st communication link step, The 4th communication link step which receives the result of the retrieval transmitted from retrieval equipment, It is the method of presentation of the retrieval result of the broadcast contents in the terminal unit characterized by having the display step which performs the display based on the information corresponding to the time of day received by the 1st communication link step, and the display based on the result of the retrieval received by the 4th communication link step.

[0017] Moreover, this invention is set to the method of presentation of the retrieval result of the broadcast contents in a terminal unit. The storage step which memorizes the time information corresponding to predetermined time of day by predetermined actuation, To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated The 1st communication link step which transmits the information corresponding to the time of day memorized in the storage step, The 2nd communication link step which receives the result of the retrieval transmitted from retrieval equipment, It is the method of presentation of the retrieval result of the broadcast contents in the terminal unit characterized by having the display step which performs the display based on the information corresponding to the time of day memorized by the storage means, and the display based on the result of the retrieval received in the 2nd communication link step.

[0018] Moreover, this invention is the record medium which recorded the control program for displaying the retrieval result of contents in a terminal unit. Make the time information corresponding to predetermined time of day receive from an input unit, and the information corresponding to time of day is made to transmit outside. To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day, from the database

with which the information and the broadcast time of day of these contents which show contents are matched and accumulated It is the record medium which recorded the control program for displaying the retrieval result of contents in the terminal unit characterized by displaying the result of the retrieval which was made to receive the result of the retrieval which was made to transmit the information corresponding to time of day, and was transmitted from retrieval equipment, and was received at least.

[0019] Moreover, this invention is the record medium which recorded the control program for displaying the retrieval result of contents in a terminal unit. To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day from the database with which the information and the broadcast time of day of these contents which are made to memorize the time information corresponding to predetermined time of day by predetermined actuation, and show contents are matched and accumulated It is the record medium which recorded the control program for displaying the retrieval result of contents in the terminal unit characterized by making the result of the retrieval which was made to transmit the information corresponding to the memorized time of day, and was transmitted from retrieval equipment receive, and displaying the result of retrieval by retrieval equipment at least.

[0020] Moreover, this invention is the record medium which recorded the control program for input units which inputs the information corresponding to time of day into retrieval equipment. The time information which was made to memorize the time information which shows predetermined time of day by actuation of a user, and was memorized is made to transmit outside. To the retrieval equipment with which the information which shows contents is retrieved based on the time information it was broadcast that contents were, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated It is the record medium which recorded the control program for the input units for making the information corresponding to time of day input.

[0021] Moreover, it is the record medium which recorded the control program for input units which this invention has the counter which operates with a predetermined clock, and inputs the information corresponding to time of day into retrieval equipment. The counted value of the counter at the time of predetermined is made to memorize by actuation of a user. To the retrieval equipment with which the information which shows contents is retrieved based on the time information it was broadcast that contents were from the database with which the information and the broadcast time of day of these contents which are made to transmit the memorized counted value outside and show contents are matched and accumulated It is the record medium which recorded the control program for the input units for making the information corresponding to time of day input.

[0022] As mentioned above, the retrieval system and search method by this invention In an input unit, the information corresponding to the time of day when contents were



broadcast at least memorized by the storage means by predetermined actuation is transmitted outside. With retrieval equipment The information and the broadcast time of day of contents which show contents are matched, and it is accumulated in an are recording means. The information which shows the contents accumulated in the are recording means based on the information corresponding to time of day is retrieved. In a terminal unit The display based on the information corresponding to the time of day which received the result of the retrieval which received the information corresponding to the time of day transmitted from the input unit, transmitted the information corresponding to the received time of day to retrieval equipment, and was transmitted from retrieval equipment, and was transmitted from the input unit, In order to perform the display based on the result of the retrieval transmitted from retrieval equipment, The information which shows the contents which were searched with retrieval equipment based on the information corresponding to the time of day when contents were broadcast inputted into the input unit, and which were broadcast at the time of day can be displayed on a terminal unit.

[0023] Moreover, the database with which the information and the broadcast time of day of these contents which show contents are matched, and the retrieval equipment by this invention is accumulated, It has a communication link interface for receiving the time information corresponding to predetermined time of day, and the identification information of contents from an external device. Since he is trying to retrieve the information which shows contents based on the time information corresponding to the received time of day, and the identification information of contents, the information which shows contents from the information corresponding to time of day can be retrieved.

[0024] Moreover, the terminal unit by this invention memorizes the information corresponding to the time of day when contents were broadcast at least for a storage means by predetermined actuation. Were transmitted from the input unit which transmitted outside the information corresponding to the time of day memorized by the storage means. To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day from an are recording means by which the information and the broadcast time of day of contents which receive the information corresponding to time of day, and show contents are matched and accumulated The display based on the information corresponding to time of day which received the result of the retrieval which transmitted the information corresponding to the time of day received from the input unit, and was transmitted from retrieval equipment, and was received from the input unit, In order to perform the display based on the result of retrieval by retrieval equipment, the information which shows the contents which were searched with retrieval equipment based on the information corresponding to the time of day when contents were broadcast inputted into the input unit, and which were broadcast at the time of day can be displayed.

[0025] Moreover, the method of presentation of the retrieval result by this invention To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated The display based on the information corresponding to [ the result of the retrieval which transmitted the information corresponding to the time of day from an input unit, and was transmitted from retrieval equipment is received, and ] the time of day from an input unit, In order for a terminal unit to perform the display based on the result of the retrieval from retrieval equipment, the retrieval result searched with retrieval equipment based on the information corresponding to the time of day displayed on the terminal unit can be seen on a terminal unit.

[0026] Moreover, the record medium by this invention makes the time information corresponding to predetermined time of day receive from an input unit. To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day from the database with which the information and the broadcast time of day of these contents which are made to transmit the information corresponding to time of day outside, and show contents are matched and accumulated The result of the retrieval which was made to transmit the information corresponding to time of day, and was transmitted from retrieval equipment is made to receive. Since the control program for displaying the retrieval result of contents in the terminal unit characterized by displaying the result of the retrieval received at least is recorded, In the computer which can read a record medium, the retrieval result of the contents by retrieval equipment made based on the time information corresponding to the predetermined time of day of an input unit can be displayed.

[0027] Moreover, the record medium by this invention makes the time information corresponding to predetermined time of day memorize by predetermined actuation. To the retrieval equipment with which the information which shows contents was retrieved based on the information corresponding to time of day, from the database with which the information and the broadcast time of day of these contents which show contents are matched and accumulated The result of the retrieval which was made to transmit the information corresponding to the memorized time of day, and was transmitted from retrieval equipment is made to receive. Since the control program for displaying the retrieval result of contents in the terminal unit characterized by displaying the result of retrieval by retrieval equipment at least is recorded, In the computer which can read a record medium, the retrieval result of the contents by retrieval equipment made based on the time information corresponding to the predetermined time of day memorized based on predetermined actuation can be displayed.

[0028] Moreover, the record medium by this invention makes the information

corresponding to predetermined time of day memorize by actuation of a user. To the retrieval equipment with which the information which shows contents is retrieved based on the time information it was broadcast that contents were from the database with which the information and the broadcast time of day of these contents which are made to transmit the information corresponding to the memorized predetermined time of day outside, and show contents are matched and accumulated Since the control program for the input units for making the information corresponding to time of day input is recorded, the information corresponding to the predetermined time of day for searching a record medium with retrieval equipment to an input unit in the computer which can be read can be made to memorize by actuation of a user.

[0029]

[Embodiment of the Invention] Hereafter, this invention is explained. First, the outline of this invention is explained. Drawing 1 shows the information retrieval system by this invention roughly. This system consists of a search engine 3 which searches to two databases 1 and 2 and these databases 1 and 2, and an additional terminal 4 which offers the assistance about retrieval conditions to a user.

[0030] The information relevant to the broadcast media of the contents it was broadcast by broadcast media, such as a radio broadcasting, that databases 1 were is accumulated. For example, the musical piece name broadcast in the radio station, and the time information and broadcasting station information that the musical piece was broadcast are associated mutually, and are accumulated in a database 1. Of course, the information about the contents of broadcast media other than a radio broadcasting may be accumulated in a database 1, and the contents at this time may not be restricted to the information about a musical piece, for example, goods information etc. is sufficient.

[0031] Furthermore, the accompanying information on a musical piece relates with a musical piece name, and is accumulated in a database 1. The accompanying information on a musical piece becomes the information of the player of the number of Music CD and CD title information that the musical piece was recorded, and its musical piece, a composer, etc., and a part from the words of the musical piece, description, etc., for example. You may make it accumulate the accompanying information on these musical pieces in other databases which can be searched from the bookmark search engine 4.

[0032] In addition, broadcast media are radio broadcastings, and it explains here that the contents offered from broadcast media are musical pieces.

[0033] The information about the contents itself by which a database 2 is accumulated in a database 1 is accumulated. For example, when contents are the musical pieces broadcast by broadcast media, it relates with a musical piece name and the information about the contents itself, such as a sale day, is accumulated album (CD) name and player information, and sale origin. [ that the musical piece was recorded ] Furthermore, the customer information over this system can be

accumulated in a database 2. A customer's ID information based on the identification information of a proper and the information on others about a customer are accumulated in the additional terminal 4 mentioned later at a database 2.

[0034] A search engine 3 retrieves information accumulated in the database 1 based on the retrieval conditions specified by the user. An engine here points out a mass of configuration which offers a specific function, and a search engine 3 offers a predetermined retrieval function to a user.

[0035] If a user understands the broadcasting station where the musical piece was broadcast, and a location and the broadcast time of day when the musical piece broadcast with radio is pleasing, he will specify the location information 5, the broadcasting station information 6, and time information 7 as retrieval conditions to a search engine 3. A search engine 3 searches a database 1 based on the set-up retrieval conditions, for example, outputs a musical piece name as a retrieval result. Furthermore, player information etc. is outputted the sale origin of the album name on which the database 2 was searched by the search engine 3 by having made this musical piece name into retrieval conditions, for example, that musical piece was recorded, or its album. The retrieval result of a database 2 is returned to a user.

[0036] Even if he thinks that he will search the musical piece by which the user heard broadcast and was pleased on the other hand, it knows [ the above-mentioned information 5, 6, and 7 as retrieval conditions ] or is sometimes ambiguous. In this invention, the user holds beforehand the additional terminal 4 for acquiring time information 7. Moreover, it registers with the database 2 beforehand with it by making the location information 5 and the broadcasting station information 6 according to a user into customer information.

[0037] Namely, if the broadcast musical piece is pleasing, a user will operate an additional terminal 4 and will store time information 7' at that time in an additional terminal 4. Later, based on time information 7' memorized by the additional terminal 4, retrieval is directed to a search engine 3. A search engine 3 searches a database 1 by making into retrieval conditions this time information 7', and a user's location information 5 and broadcasting station information 6 beforehand registered into the database 2. A database 2 is searched based on the musical piece name acquired as a retrieval result. The outputted retrieval result is returned to a user as a candidate of the information for which a user wishes.

[0038] Thus, when the musical piece it was broadcast by using the system by this invention, for example that a user was is pleasing, the information on hope can be acquired by operating an additional terminal 4 and storing time information 7' in an additional terminal 4.

[0039] Next, the 1st gestalt of implementation of this invention is explained. Drawing 2 shows an example of the musical piece data retrieval structure of a system by the 1st gestalt of this operation. In drawing 2, the same number is given to the part which is common in drawing 1 mentioned above, and detailed explanation is omitted. The

bookmark search engine 10 consists of a database 1, a database 2, and a search engine 3. The bookmark search engines 10 are communication lines, such as the Internet, and are connected to other websites which are not illustrated.

[0040] In addition, a website is a location on which the information released to a network is put, and this bookmark search engine 10 is also one of the websites. For example, the bookmark search engine 10 is illustrated as other websites, there is and database connection is made. [ no ] The location of a website is described by the address information called URL (Uniform Resource Locator).

[0041] A broadcasting station 12 is a radio station and broadcasts a musical piece etc. as contents based on the play list created beforehand. A play list may be created after broadcast. Of course, a musical piece, goods information, and the information on other are also broadcast as contents. Furthermore, a broadcasting station 12 may be a wire broadcasting office which broadcasts with a cable centering on the television broadcasting office which performs television broadcasting not only with a radio station but with wireless or a cable for CATV (Cable Television) and a musical piece.

[0042] The bookmark search engine 10 and a broadcasting station 12 are connected by communication lines, such as the Internet. An above-mentioned play list is transmitted from a broadcasting station 12 to the bookmark search engine 10. In the bookmark search engine 10, the received play list is accumulated in a database 1. Drawing 3 shows an example of a play list. In the example of drawing 3, the identifier (Station Name) of the broadcasting station 12 where the contents were broadcast, the broadcast area (Area) of the broadcasting station 12, the broadcast start time (Start Time) of contents (musical piece), the broadcast end time (End Time) of contents, and a contents name (Content) are matched to one contents, for example, the broadcast musical piece for one music.

[0043] In addition, the are recording to the database 1 of a play list is not restricted to the example transmitted from the broadcasting station 12 where broadcast of contents was performed actually. For example, the play list which managed information and was broadcast with the help is created, and the created play list is supplied to a database 1 through a predetermined storage, and you may make it accumulate it. Moreover, a play list is created by system with an another broadcasting station 12, and you may make it transmit to the bookmark search engine 10. Each broadcasting station can be identified in a database 1, and the play list of two or more different broadcasting stations 12 can be accumulated in it.

[0044] By the communication lines 8, such as the Internet, the bookmark search engine 10 and the gateway device 11 are connected bidirectionally. Although mentioned later for details, it is a personal computer, and the gateway device 11 can communicate with the additional terminal 4 which a user owns while communicating in the bookmark search engine 10 and both directions.

[0045] The gateway device 11 is not restricted to a personal computer. For example, the set top box prepared in order to connect a television receiver and a digital

network can be used as a gateway device 11. IRD which is a receiver for digital broadcast in other examples (Integrated Receiver Decoder) It can use as a gateway device 11. Moreover, the gateway device 11 is not restricted to what an individual can own as mentioned above. For example, it is installed in a retail store etc. and a user can use the information terminal unit made available as a gateway device 11.

[0046] Drawing 4 shows an example of the appearance of the additional terminal 4 by the 1st gestalt of this operation. In addition, below, an additional terminal 4 is called the book marker 4. The book marker 4 has the display 21 as which the input section 20 which consists of a carbon button, and current time of day are displayed. Moreover, the connector 22 which is an electric node at the time of communicating with the gateway device 11 mentioned above is formed.

[0047] This book marker 4 can contain in the small case which consists of a simple configuration which is mentioned later, for example, can be used as a key holder. Not only this example but the book marker 4 can include in other various electronic equipment. For example, although an example is mentioned later, the book marker 4 can include in a radio set. It can also carry in the car stereo system carried in an automobile. Of course, the object incorporating the book marker 4 is not restricted to electronic equipment. When the book marker 4 includes in a thing of migration which is carried in the case [ a thing ] and used, he is more desirable.

[0048] Drawing 5 shows an example of the configuration of the book marker 4 by the 1st gestalt of this operation. Although omitted in this drawing, CPU (Central Processing Unit) 25 have the configuration of memory, a bus, a predetermined interface, etc., etc. A carbon button 20, a display 21, memory 26, a timer 28, an interface 29, and ROM (Read Only Memory)91 are connected to CPU25. A timer 28 is made to output current time of day, and proofreading of time of day is possible for it by control of CPU25. A display 21 consists of LCD (Liquid Crystal Display), and a display control is carried out by CPU25. The time information outputted from the timer 28 is supplied and displayed on a display 21 through CPU25. A display 21 can be omitted.

[0049] A program for ROM91 to perform this book marker's 4 motion control is stored beforehand. CPU25 controls actuation of the book marker 4 based on the program stored in ROM91. For example, the display control to a display 21, the control corresponding to actuation of a carbon button 20, the communications control through an interface 29, the access control of memory 26, etc. are made by CPU25 based on the program stored in ROM91.

[0050] Actuation of the carbon button 20 by the user is detected by CPU25, and the time information at that time is memorized by memory 26 based on the output of a timer 28. Time information can make plurality memorize to memory 26, as an example is shown in drawing 6 . Mutually, the sign by the serial number is given to each of time information so that it may be identifiable. The terminal ID 27 memorized to the predetermined field of memory 26 is unique ID which can specify each individual of

the book marker 4.

[0051] Although explained by \*\*\*\* that the information memorized by memory 26 by operating a carbon button 20 was only the identification information for identifying each of time information and time information, this is not limited to this example. Memory 26 can be made to memorize time information and the classification information corresponding to the time information as an example. When a user operates a carbon button 20, CPU25 detects that it is continued whether pushing a carbon button 20 whether a carbon button 20 is pushed only once momentarily or a carbon button is pushed twice into predetermined time, and beyond predetermined time. Based on this detection result, classification information is generated by CPU25, and memory 26 is made to memorize the generated classification information with identification information and time information.

[0052] For example, when a carbon button 20 is pushed once momentarily, the actuation based on a radio broadcasting and a carbon button 20 are pushed twice into predetermined time and the actuation based on television broadcasting and a carbon button 20 continue being pushed beyond predetermined time, it classifies that it is actuation out of the action area of the user who mentions later, and CPU25 generates the flag which corresponds as classification information, respectively. This flag, and corresponding time information and identification information are associated mutually, and are memorized by memory 26.

[0053] An interface 29 controls the communication link with the exterior 11 through a connector 22, i.e., a gateway device. Especially the interface specification by the interface 29 at the time of communicating with the gateway device 11 is not limited. For example, USB (Universal Serial Bus) can be used as interface specification of the communication link with the book marker 4 and the gateway device 11. Moreover, the interface specification specified by IEEE-1394 can be used. Furthermore, RS-232C can be used as interface specification of this communication link.

[0054] It is not restricted to the communication link by the cable as mentioned above further again, for example, he is IrDA (Infrared Data Association). It may be made to perform the communication link with the book marker 4 and the gateway device 11 using an infrared signal using the interface specification to depend. In this case, a connector 22 and an interface 29 have the transceiver function of an infrared signal.

[0055] Moreover, the IC card which embedded an integrated circuit and means of communications for the book marker 4 in the card and PCMCIA (Personal Computer Memory Card International Association) And JEIDA (Japan Electronic Industry Development Association) It can also constitute as a PC card by convention. When the book marker 4 is constituted as an IC card, the interface specification which suited the IC card concerned as an interface 29 is used. When the book marker 4 is constituted as a PC card, the connector corresponding to a PC card is prepared in the gateway device 11. The communication link with the book marker 4 and the gateway device 11 can be performed by equipping the connector corresponding to

this PC card with the book marker 4 as a PC card directly.

[0056] By the command of CPU25, the terminal ID 27 memorized by memory 26 and time information can be read from memory 26, and can be outputted outside through an interface 29.

[0057] Drawing 7 shows an example of the configuration of the gateway device 11. Although \*\*\*\* was also carried out, a common personal computer can be used as a gateway device 11. Drawing 7 is an example using a common personal computer as a gateway device 11. CPU31, ROM (Read Only Memory)32, RAM (Random Access Memory)33, the display-control circuit 34, and a storage 36, for example, a hard disk, are connected to a bus 30. Moreover, the control signal based on actuation of a user is outputted, for example, the input means 91 which consists of a pointing device of a keyboard and a predetermined method is connected to a bus 30. CPU25 operates based on the program memorized by ROM32 and the hard disk 36, and performs predetermined processing by actuation of a user's input means 91. RAM33 is used as work-piece memory of CPU31. The display-control signal outputted from CPU25 is supplied to the display-control circuit 34, and the display based on a display-control signal is performed to a display 35.

[0058] Furthermore, the interface 37 for communicating with the book marker 4 is connected to a bus 30. That to which the interface 37 suited the interface specification corresponding to the book marker's 4 interface 29, for example, USB, IEEE-1394, RS-232C, IrDA, etc. is used.

[0059] The means of communications 38 for communicating through the bookmark search engine 10 and a communication line 8 is further connected to a bus 30. Means of communications 38 is a modem and is connected to the dial-up line as a communication line 8. Using a modem, with a dial-up line, the Internet can be accessed and the gateway device 11 can communicate in the bookmark search engine 10 and both directions through the Internet.

[0060] The speech processing means 39 connected to a bus 30 changes into an analog sound signal the digital voice data supplied through the bus 30. The analog sound signal outputted from the speech processing means 39 is reproduced by the loudspeaker 90.

[0061] Although mentioned above, a user needs to register a user's own information into the customer database 2 of the bookmark search engine 10 beforehand. This registration can be performed using the gateway device 11. First, a user connects the book marker 4 who owns to the gateway device 11 with a predetermined interface. A user operates the gateway device 11 and registers the book marker 4 whom a user and a user own.

[0062] Drawing 8 shows an example of a display of the registration screen 40 in the display 35 at the time of registering the book marker 4 whom the user and user by the gateway device 11 own. A user's name is inputted into the "identifier" column 41. The book marker's 4 terminal ID 27 which a user owns is inputted into the "Bookmark ID"



column 42.

[0063] The input of the terminal ID 27 mentioned above is performed by the communication link with the gateway device 11 and the book marker 4. That is, a demand of the purport which reads a terminal ID 27 from the gateway device 11 to the book marker 4 is transmitted. In the book marker 4, reading appearance of the terminal ID 27 is carried out from memory 26 by the control of CPU25 based on this demand. The terminal ID 27 by which reading appearance was carried out is transmitted to the gateway device 11. In the gateway device 11, while displaying the received terminal ID 27 on the "Bookmark ID" column 42 of a display 35, it memorizes, for example to RAM33.

[0064] As for the "zip code" column 43 and the "area code" column 44, the area code in the zip code and dial-up line of the area in which a user resides is inputted, respectively. Based on the content inputted into columns 43 and 44, the area where a user acts is shown roughly. You may make it input the information not only showing a zip code or area code but the field for example, on geography about the area where a user acts. The realm name set up uniquely beforehand can be inputted. The information as which a user specifies the radio station which choose is inputted into the "radio station" column 45. Although the broadcasting station name is inputted, you may make it input the frequency band of not only this but a radio broadcasting in this example.

[0065] The number of a user's credit card or an ATM card etc. is inputted into the "card No." column 46. As for the "address" column 47, a user's address is inputted into accuracy. These are information used when the service which used the book marker 4 is accompanied by accounting.

[0066] Each information which was mentioned above and which was inputted into columns 41-47 is memorized by RAM33, respectively. And based on predetermined actuation, reading appearance is carried out from RAM33, and it is transmitted by means of communications 38 to the bookmark search engine 10. It is more desirable when it enciphers by the predetermined approach to each information transmitted at this time.

[0067] On the other hand, a timer 28 is proofread in the book marker 4. For example, in order to register a terminal ID 27, when the book marker 4 and the gateway device 11 are connected, two-way communication can be performed between the book marker 4 and the gateway device 11, and the book marker's 4 timer 28 can be proofread using the time information outputted from the timer (not shown) which the gateway device 11 has.

[0068] Moreover, the communication link of the one way from the book marker 4 to the gateway device 11 can also perform same processing. The book marker 4 and the gateway device 11 are connected, and a terminal ID 27 is transmitted to the gateway device 11 from the book marker 4. With it, the time information by the timer 28 is transmitted from the book marker 4 to the gateway device 11. By the gateway device

11 side, this transmitted time information is compared with the time information which the timer which the gateway device 11 has, and which is not illustrated shows, and right time of day can be computed using that difference.

[0069] In addition, the time information by the timer with which the gateway device 11 is not illustrated in these cases needs to be proofread at right time of day by a certain approach.

[0070] Furthermore, although it is explained by \*\*\*\* that the book marker 4 has the timer, this is not limited to this example. For example, the counter which operates with the clock of a predetermined period can be prepared for the book marker 4, and the time information which shows the time of day when the carbon button 20 was pushed by the counted value of this counter can be searched for. For example, the counted value at the time of a user operating a carbon button 20 is memorized by memory 26. The book marker 4 is connected to the gateway device 11, and in case the counted value memorized by memory 26 is transmitted to the gateway device 11, the counted value in the event of transmitting is transmitted to the gateway device 11 with the counted value by which reading appearance was carried out from memory 26.

[0071] On the other hand, the gateway device 11 proofreads the timer which is not illustrated using a predetermined approach, and obtains a master clock. For example, by means of communications 38, it communicates with the bookmark search engine 10 through a communication line 8, time information is acquired, and the timer of the gateway device 11 is proofread by this time information. Moreover, a predetermined receiving means is formed in the gateway device 11, and the time information included in television broadcasting or a radio broadcasting is received, and it may be made to proofread the timer of the gateway device 11 based on the received time information.

[0072] In the gateway device 11, the difference of the counted value in the case of actuation of the carbon button 20 by the user transmitted by the book marker 4 and the counted value at the time of the transfer from the book marker 4 being performed is called for. If the period of count-up the book marker's 4 counter is known beforehand, in the book marker 4, a user can operate a carbon button 20, and accuracy can be asked for the time of day when counted value was memorized by memory 26 because only the time amount corresponding to the counted value of difference goes back based on the timer of the gateway device 11 which generates a master clock on the basis of the time of day when the transfer from the book marker 4 was performed.

[0073] If this approach is used, the need of forming the display 21 which gives the book marker 4 a clock (timer 28) and a time stamp will be lost. Moreover, if this approach is used, there is no need of proofreading the book marker's 4 timer 28, and it is desirable.

[0074] In the book marker 4, in using a counter instead of a timer, the counted value of a counter turns into a value corresponding to time information.

[0075] In addition, when the book marker 4 is connected to the gateway device 11, for example, also when the period of the book marker's 4 counter is unknown, management becomes possible by setting a fixed period and measuring the counted value of the book marker's 4 counter with the gateway device 11.

[0076] Moreover, although \*\*\*\* explained that a counter counted with the clock of a predetermined period, this is not limited to this example. A counter can be operated with the clock generated to the timing of arbitration, if counted value and the time amount from for example, the time of count initiation are matched. For example, a counter can be operated with a shift register and the clock based on an M sequence generated using an exclusive OR circuit. Moreover, for example, the period of a clock may be changed periodically and a counter may be operated. Of course, it is necessary to know of what kind of clock the book marker 4 has the counter in the gateway device 11 side. By using such a clock, in order to operate a counter, it becomes possible to prevent illegal manufacture and an illegal activity of the book marker 4.

[0077] Furthermore, although it asked for the time of day when the carbon button 20 was pushed by the book marker 4 on the gateway device 11 in \*\*\*\*, this is not limited to this example. For example, in the gateway device 11, the time information which shows the time of day when the carbon button 20 was pushed by the book marker 4, and the time information which shows the time of day when the transfer of time information was performed to the gateway device 11 from the book marker 4 are searched for. And such time information is transmitted to a search engine 10, and it can ask for the exact time of day when the carbon button 20 was pushed based on the master clock of a search engine 10.

[0078] The book marker's 4 timer 28 or above-mentioned counter is good also as actuation like stop watch further again. That is, when a carbon button 20 is operated first, actuation is started, and measurement of time amount or the multiplier of counted value is started. If, as for this timer 28 or counter, time information (or counted value) is transmitted to the gateway device 11 from the book marker 4, it will be reset and actuation will be suspended. And when a carbon button 20 is operated next, actuation of a timer 28 or a counter is started again. By carrying out like this, the power consumption in the book marker 4 can be saved.

[0079] Next, the contents retrieval processing by the system shown by above-mentioned drawing 2 is explained using the flow chart of drawing 9 . First, registration to the bookmark search engine 10 of the book marker's 4 terminal ID 27 which a user owns is performed at the first step S10 by procedure which was mentioned above.

[0080] A user can make time information memorize in locations of arbitration, such as inside of a street or an automobile, using this book marker 4 by whom the terminal ID 27 was registered. For example, if the musical piece reproduced with the radio with which it was equipped in the train is pleasing, the book marker's 4 carbon button 20 will be pushed on that spot. The time information on which the carbon button 20 was

pushed is memorized by the book marker's 4 memory 26 (step S11). Two or more time information is memorizable in the range of the storage capacity of the memory 26 which the book marker 4 builds in (step S12).

[0081] At step S13, the book marker 4 and the gateway device 11 (in drawing 9 , it is called G-D for short) are connected. At the following step S14, reading appearance of the time information memorized by the book marker's 4 memory 26 is carried out with a terminal ID 27, and it is transmitted to the gateway device 11 through the predetermined interface mentioned above. Processing of this step S14 can be automatically started, if the book marker 4 and the gateway device 11 are connected at the above-mentioned step S13. And the time information and Terminal ID 27 which were transmitted to the gateway device 11 from the book marker 4 are transmitted to the bookmark search engine 10 from the gateway device 11 through a communication line 8 at the following step S15.

[0082] In the bookmark search engine 10, informational retrieval is performed by step S16 based on the time information and Terminal ID 27 which were transmitted from the gateway device 11. Time information is used as retrieval conditions. For example, if you want to know musical piece information, a database 1 will be searched based on time information, and the music name of the musical piece currently broadcast by radio station each station etc. will be outputted to the time of day shown by time information based on the play list of each broadcasting stations accumulated in the database 1.

[0083] In the case of retrieval, retrieval conditions are narrowed down using the registration information of the user in step S10 in this step S16 mentioned above. A database 2 is searched based on the terminal ID 27 transmitted from the gateway device 11, and a user's registration information registered as a terminal ID 27 is outputted. This registration information is further used as retrieval conditions.

[0084] For example, in case a play list is searched with a database 1, and a terminal ID 27 is registered into the bookmark search engine 10 at the above-mentioned step S10, only the play list of specific broadcasting stations is made applicable to retrieval using the information on a broadcasting station that it was inputted into the "radio station" column 45.

[0085] In this way, if a play list is searched about the target broadcasting station (step S17), a retrieval result will be returned to a user. That is, the retrieval result in the bookmark search engine 10 is transmitted to the gateway device 11. It is checked whether the information for which the transmitted retrieval result is displayed on the display screen which mentions an example later, and the user needs it has been retrieved in the gateway device 11 (step S18).

[0086] When the information which the user needs for the retrieval result is not included, that is transmitted by the bookmark search engine 10 from the gateway device 11, at step S19, retrieval conditions are changed and retrieval is performed again. For example, it extends at all the broadcasting stations that can receive the

object of the broadcasting station as retrieval conditions within limits specified using such information based on the information into which it was inputted by the "zip code" column 43 and the "area code" column 44. The object of not only this but the broadcasting station as retrieval conditions may be extended in the area contiguous to the area into which it was inputted by columns 43 and 44.

[0087] In re-retrieval at step S19, retrieval conditions can be automatically set up by the bookmark search engine 10 side. For example, the content of registration which the user registered by processing of step S10 is gradually applied to retrieval conditions. Moreover, a user can set up directly the retrieval conditions in the case of re-retrieval. New retrieval conditions are inputted into the gateway device 11 by the user. The inputted retrieval conditions are transmitted to the bookmark search engine 10 from the gateway device 11.

[0088] In this way, retrieval of the information which a user needs transmits the information retrieved at step S20 to the gateway device 11 from the bookmark search engine 10. For example, when the information on a musical piece is being retrieved, the searched voice data of a musical piece is transmitted to the gateway device 11 from the bookmark search engine 10. The voice data of a musical piece can be accumulated in a database 2. It connected mutually not only by this but by the Internet, the voice data of a musical piece is required from a website, in addition voice data may be made to be transmitted from a website.

[0089] A user can store the transmitted voice data in the hard disk 36 of the gateway device 11, for example, can reproduce it by the speech processing means 39 and the loudspeaker 90. And if the musical piece of this voice data is pleasing, it can communicate with the bookmark search engine 10 using the gateway device 11, and the purchase of the albums (CD etc.) with which this musical piece was recorded can be required.

[0090] Drawing 10 shows an example of the display screen of the gateway device 11 after step S18. The user name 51 of a user's registration information, a terminal ID 27, and area 52 are displayed on the screen upper part. In addition, the input column is omitted on the registration screen of drawing 8 which mentioned area 52 above. In this example, the user has registered four broadcasting stations of three radio stations "AAAA", "BBBB" and "CCCC", and one CATV (Cable Television) broadcasting station "DDD."

[0091] The retrieval result about broadcast of four broadcasting stations in the bookmark search engine 10 based on one time information 53 registered into the bookmark 4 is displayed as displays 54, 55, 56, and 57. In this example, the musical piece is broadcast by the broadcasting station "AAAA", "BBBB", and "DDD" at the time of day shown in time information 53. On the other hand, the publicity advertisement is broadcast at the broadcasting station "CCCC." If the display 54 which shows a broadcasting station "AAAA" is taken for an example, on the bottom of a broadcasting station name and the frequency band information on broadcast, jacket

image 54A of CD with which the musical piece which the broadcasting station "AAAA" was broadcasting at the time of day of time information 53 is recorded will be displayed, music name and singer name 54B will be displayed on the bottom of it, and selling price 54C of the CD concerned will be displayed.

[0092] Furthermore, under it, it is common at each broadcasting station where the musical piece was broadcast, and the carbon buttons 58, 59, and 60 which can be operated are virtually arranged by the user interface of the gateway device 11, respectively. By operating a carbon button 58, the voice data of the musical piece concerned is transmitted to the gateway device 11 from the bookmark search engine 10, and it is reproduced by the loudspeaker 90 through signal processing of the speech processing section 39. When a carbon button 58 is operated, the transmitted voice data is not memorized by the predetermined store 36, for example, a hard disk.

[0093] A user can choose the musical piece to wish out of the musical piece broadcast and searched at each registered broadcasting station with the voice data of such jacket image 54A, music name, and singer name 54B and a musical piece etc.

[0094] A carbon button 59 is used to purchase CD with which the musical piece concerned is recorded, for example. Moreover, the voice data of the musical piece concerned is downloaded, for example, for example, a carbon button 60 is used for a hard disk 36 to memorize. When carbon buttons 59 and 60 perform the purchase of CD, or download of a musical piece, based on the number inputted in the "card No." column 46 of drawing 8, a price can be charged directly to a credit card or an ATM card.

[0095] In addition, although carbon buttons 58, 59, and 60 are not displayed to broadcast of the publicity advertisement of a broadcasting station "CCCC" in the example of drawing 10, it is also possible to prepare separately a carbon button to which it applies for the purchase of the goods currently displayed.

[0096] Moreover, the information by other registration broadcasting stations can be displayed by operating a carbon button 61, when there are many broadcasting stations registered and it cannot display at once to Screen 50.

[0097] In addition, although the book marker 4 explained by \*\*\*\* as equipment of the dedication which memorizes time information, this is not limited to this example. for example, a cellular phone and PHS (Personal Handy Phone System) etc. -- it is easy to give the book marker's 4 function to portable communication equipment. A carbon button 20 can be arranged to a device with a dialing key etc., and the telephone number registered into the device can be used as a terminal ID 27. It may be made to realize the function of a carbon button 20 in a predetermined combination of a dialing key. Similarly, it is GPS (Global Positioning System). It is also easy to give the book marker's 4 function to a receiver. Moreover, since a user's location can be limited when the book marker's 4 function is given to the device it is made to have detection of a location performed, PHS, GPS, etc. can perform more exact retrieval which narrows down a broadcasting station etc.

[0098] Furthermore, the small portable information machines and equipment called PDA (Personal Digital Assistant) can be used as a book marker 4. In this case, the book marker's 4 function is offered as software to PDA, and PDA performs actuation as a book marker 4 virtually.

[0099] The cellular phone which can respond to the connection service to the Internet can be used as a gateway device 11 further again. For example, the end of a strap is used as a connector 22 by making the strap for hanging a cellular phone with the book marker 4, and having into one-structure, and the other end is attached in a cellular phone. The connector is prepared in the lower part so that the data transmitted to the Internet can generally be inputted into the cellular phone which can respond to the connection service to the Internet. When transmitting the time information memorized by the book marker 4 made in one with the strap to the cellular phone as a gateway device 11, the connector 22 of the end of a strap is connected and used for the connector of the lower part of a cellular phone. A transfer of the time information from the gateway device 11 to the bookmark search engine 10 can be easily performed by accessing the Internet with a cellular phone.

[0100] As a modification of the 1st gestalt of this operation, a carbon button 20 is realizable by software in the gateway device 11. For example, the function of a carbon button 20 to memorize time information is assigned to the predetermined key of the gateway device 11, and the position on a screen. The function of a carbon button 20 may be given to the predetermined icon displayed on a screen. Time information is memorized by operating the icon which has the function of a carbon button 20 using pointing devices, such as a mouse. The terminal ID 27 is memorized to the predetermined field of the ROM32, RAM33, or the hard disk 36 of the gateway device 10.

[0101] A user's actuation of the icon assigned to the gateway device 11 as a carbon button 20 memorizes the time information which shows the time of day when the actuation was made to the predetermined field of RAM33 or a hard disk 36. Reading appearance of this memorized time information is carried out, and time information and a terminal ID 27 are both transmitted to the bookmark search engine 10 through a communication line 8. In the bookmark search engine 10, retrieval is made based on the transmitted information and a retrieval result is transmitted from the bookmark search engine 10 through a communication line 8 to the gateway device 11.

[0102] In addition, in the case of retrieval, the unique terminal ID 27 in the bookmark search engine 10 is supplied to each book marker 4 from each of each book marker 4. If this terminal ID 27 is used, it can turn out how many persons demanded and downloaded which musical piece, for example, and can use for market research etc.

[0103] Next, the book marker's 4 more concrete example mentioned above is explained. If the book marker 4 is made as [ memorize / to the timing for which a user asks / time information ], he can take various gestalten.

[0104] Drawing 11 shows the gestalt of the book marker's 4 example. As shown in

drawing 11 A, with the gestalt of this example, the notching sections 101 and 102 are formed in the book marker's 4 ends. For example, by letting a string, a chain, etc. pass in the notching sections 101 and 102, the book marker 4 can be made into the pendant, and can be carried. A display 21 is formed in an abbreviation center section, and a carbon button 20 is formed in the lower part of a display 21.

[0105] The notching section 101 side serves as cap 103, and the connector 22 for connecting with the gateway device 11 is contained in the cap 103. If cap 103 is drawn out in the upper part, as an example is shown in drawing 11 B, cap 103 will separate from book marker 4 body, and a connector 22 will be exposed. That is, a connector 22 is made into the structure made to project directly from book marker 4 body. In this example, the book marker's 4 interface 29 shall support USB, and a connector 22 is a connector by the side of the male of USB.

[0106] Since the connector 22 is made to project directly from book marker 4 body, the book marker 4 and the gateway device 11 are connectable with the connector (female side) of the interface 37 with which the gateway device 11 corresponds by inserting the connector 22 of book marker 4 body. When the connector of USB is used as A mold, when a personal computer is used for the gateway device 11, it is easy to take compatibility, and desirable.

[0107] In addition, the case where bookmark 4 body and the gateway device 11 are not directly connectable as mentioned above structural depending on the structure of the connector circumference of the gateway device 11, for example is possible. So, with the gestalt of this example, the repeater with which the connector by the side of the female of USB and the path cord to the gateway device 11 were prepared is used. This repeater is called a cradle. Drawing 12 shows the appearance of an example of this cradle 110, and shows signs that a cradle 110 is equipped with a bookmark 4.

[0108] The cradle 110 of this example has a semi-sphere-like appearance, and is made into the structure where the connector 111 by the side of the female corresponding to the book marker's 4 connector 22 (male side) is formed in a top-most-vertices part. Of course, the appearance of a cradle 110 is not restricted in the shape of a semi-sphere, but can be made into arbitrary configurations, such as a rectangular parallelepiped, and a rectangular-head drill, other still more complicated configurations. Moreover, the path cord 112 for connecting with the gateway device 11 is pulled out from the connector 111.

[0109] A path cord 112 is connected to the predetermined connector of the gateway device 11, the book marker's 4 connector 22 is inserted in the connector 111 of a cradle 110, and it becomes possible to transmit the time information memorized by the book marker's 4 memory 26 to the gateway device 11 by equipping a cradle 110 with the book marker 4.

[0110] The number of cases of the time information memorized by this book marker 4 now is shown to the display 21 by ball-like displays 100, 100, and 100, ..., 100' by control of CPU25. The book marker 4 can generate the classification information



corresponding to time information, and can make memory 26 memorize time information and classification information on the operating instructions of a carbon button 20, as mentioned above. This classification information can be made to reflect in the display which is displayed on a display 21 and which shows time information.

[0111] The gestalt of this example is expressing classification information by the ball-like display 100 displayed as a black dot, and ball-like display 100' displayed as a white round head, as shown in drawing 11 . For example, the ball-like display 100 is a display corresponding to the actuation of a carbon button 20 based on a radio broadcasting, and ball-like display 100' is the display corresponding to the actuation of a carbon button 20 based on television broadcasting. Although the graphic display is omitted, the display corresponding to the actuation of a carbon button 20 based on the outside of area is also displayed with still more nearly another method of presentation.

[0112] Of course, time information may be displayed not only with a black dot display and a white round-head display but with other methods of presentation. For example, you may make it express numerically the number of cases memorized actually. Moreover, the number of cases which is already memorized and is deducted from the number of cases memorizable to the book marker 4, and it can display.

[0113] The display of the above-mentioned display 21 can change, when transmitting the time information memorized by the book marker's 4 memory 26 to the gateway device 11. Drawing 13 shows the example of a display of the display 21 at the time of a transfer. In addition, drawing 13 is shown after the cap 103 in above-mentioned drawing 11 has been suitable caudad. Time amount has passed in order of drawing 13 A, drawing 13 B, and drawing 13 C. In drawing 13 A, the ball-like display 100 and 100' as which seven pieces were displayed are displayed that a display is changed so that it may absorb in the direction of a connector 22 while the number of displays is gradually reduced in connection with the passage of time. The data memorized by memory 26 are sucked up by the gateway device 11 through a connector 22 by this, and signs that data are transmitted are expressed virtually.

[0114] In addition, it is possible to perform the display at the time of this transfer also like the gateway device 11. It can be made to output voice to the gateway device 11 in connection with change and the passage of time of a display by preparing the voice playback section in the case of a transfer. Furthermore, actual data transfer is extremely performed for a short time compared with the reduction rate of the number of displays of a display 21, and there is no need of making a actual transfer rate and the change rate of a display of a display 21 corresponding. Thus, in case the time information memorized by memory 26 is transmitted, in connection with the passage of time, a display can be changed or a user can grasp intuitively having transmitted time information to the gateway device 11 with outputting voice.

[0115] The display at the time of a transfer is variously considered besides a \*\*\*\*. For example, a certain character can be displayed in the gateway device 11. Moreover, the display of the book marker's 4 display 21 and the display of the gateway device 11

are interlocked, and signs that data are transmitted to the gateway device 11 from the book marker 4 can be displayed continuously.

[0116] Drawing 14 shows the modification of the gestalt the above-mentioned book marker's 4 example. This is an example which has not formed the lower notching section 102 to the gestalt of the above-mentioned book marker's 4 example. Drawing 14 A shows signs that it equipped with the cap 103, and drawing 14 B shows signs that removed the cap 103 and the connector 22 was exposed. The carbon button 20 consists of examples of this drawing 14 so that it can be pushed in and operated from the lower part.

[0117] Drawing 15 shows other modifications of the gestalt the above-mentioned book marker's 4 example. This is an example from which the display of the number of cases of the time information of a display 21 is the rod-like display 120 to the gestalt (refer to drawing 11 ) of the above-mentioned book marker's 4 example. Drawing 15 A shows signs that it equipped with the cap 103, and drawing 15 B shows signs that removed the cap 103 and the connector 22 was exposed.

[0118] Drawing 16 shows the modification of further others of the gestalt of the above-mentioned book marker's 4 example. This is the example which did not form the notching sections 101 and 102, and formed the skid section 130 which consists of rubber in the side face of the book marker's 4 body to the gestalt (refer to drawing 11 ) of the above-mentioned book marker's 4 example. Moreover, in this example, it is the area display 131 in a display 21, with number-of-cases presenting of time information is made. Drawing 16 A shows signs that it equipped with the cap 103, and drawing 16 B shows signs that removed the cap 103 and the connector 22 was exposed.

[0119] Drawing 17 shows the example of other gestalten of the book marker 4. In this example, the ring 150 is attached in the cap 103 of the book marker 4, and where the book marker 4 is equipped with cap 103, the book marker 4 can be used as a key holder.

[0120] In addition, the book marker 4 shown in above-mentioned drawing 14 - drawing 17 can make the cradle 110 mentioned above apply.

[0121] Drawing 18 shows the example of the gestalt [ of the book marker 4 ] of further others. The book marker 4 consists of this example in the shape of a wristband. A display 21 consists of the burning sections which consist of two or more LED (Light Emitting Diode) which turns on only the number corresponding to the number of cases of the memorized time information. All the burning sections are made to turn on beforehand and you may make it switch off the burning section according to the number of cases of the memorized time information. A path cord 140 is pulled out from the end of book marker 4 body, and, as for a connector 22, a connector 22 is formed in the termination of a path cord 140. Furthermore, the device which can attach a connector 22 is prepared in the other end of book marker 4 body, and the book marker 4 whole makes the shape of a ring by attaching a connector 22 using this

device.

[0122] Drawing 19 shows another example of the book marker's 4 gestalt. Like a clock, the book marker 4 shown in this drawing 19 places on a desk etc., and is made to be used. A carbon button 20 is formed in the book marker's 4 top face, and a display 21 is formed in a front face. In this example, presenting of the memorized time information is made by the square 160 and 160'. For example, it is smeared away black, and the time information based on a radio broadcasting is expressed, and, as for the square 160 shown, square 160' shown by void expresses the time information based on television broadcasting. The location of a display is decided at random to the sequence of storage of time information. The connector 22 for connecting with the gateway device 11 is formed in the rear-face side which is not illustrated, for example. The connector by the side of the female of USB is prepared also in the book marker 4 side, and you may make it connect with the gateway device 11 in the example of this drawing 19 by the path cord whose ends are male sides.

[0123] In addition, an upper limit can be prepared in the number of cases of a hour entry memorizable to the book marker 4. For example, the time and effort of next retrieval is considered and a memorizable upper limit is made into several affairs or about about ten affairs. When the storage number of cases of time information reaches an upper limit at this time, or when an upper limit approaches, it is good for that to be notified by the user by a certain approach. For example, it is possible to prepare the book marker 4 voice generating means, such as a beep sound. A beep sound is generated, when a carbon button 20 is operated and time information is memorized using this voice generating means, and the memorizable number of cases remains and it becomes one affair. A beep sound is generated, when the memorizable number of cases is 0 and a carbon button 20 is pushed.

[0124] Moreover, the voice by the voice generating means is not restricted to an above-mentioned beep sound. For example, predetermined voice can be generated whenever the book marker's 4 carbon button 2 is operated by the user. By carrying out like this, even if a user does not look at the book marker's 4 display 21, he can know that the carbon button 20 was pushed certainly. Furthermore, the voice which changes with how to push a carbon button 20 can be generated.

[0125] It is also possible to prepare the book marker 4 a Cancel button and to enable it to delete the memorized time information, for example sequentially from an old affair or a new affair. The memorized time information is chosen and it can delete.

[0126] Moreover, the book marker 4 can include not only in an above-mentioned example but in other various electronic equipment. For example, the book marker 4 can include in a radio set. It can also carry in the car stereo system carried in an automobile. Of course, the object incorporating the book marker 4 is not restricted to electronic equipment. When the book marker 4 includes in a thing of migration which is carried in the case [ a thing ] and used, he is desirable.

[0127] Furthermore, by \*\*\*, the carbon button 20 was formed only for one \*\* as a

control unit for memorizing time information to the book marker 4, and two or more classification flags were generated by pushing apart this carbon button 20. This is not limited to this example, but prepares the book marker 4 two or more carbon buttons, and you may make it assign a classification flag which is different in each. For example, the carbon button 20 for radios and carbon button 20' for television can be prepared, respectively. Moreover, it is the combination of two or more carbon buttons, and the classification flag of varieties can be generated further.

[0128] Moreover, the control unit for memorizing the book marker's 4 time information is not restricted to a push button. For example, the rotary switch with which a contact switches is formed and you may make it memorize time information by operating this rotary switch by making it rotate. The touch sensor which detects contact of the body can also be used as a control unit.

[0129] Furthermore, although the interface of USB it is made to have connection between the book marker 4 and the gateway device 11 data transfer made in a computer system is used in \*\*\*, this is not limited to this example. That is, since there is very little amount of data transmitted to a gateway device from the book marker 4, the late interface of a data transfer rate can be used more for it. For example, it is also possible to transmit data with the usual shielding wire which is used for headphone.

[0130] The book marker 4 can also be realized as software on a personal computer further again. In this case, although the personal computer with which the book marker 4 is constituted may be prepared separately, when the gateway device 11 is a personal computer, this gateway device 11 itself can be used as a book marker 4. The book marker 4 is downloaded from communication networks, such as the Internet, and the software for realizing on a personal computer can obtain him. Of course, this software is recorded on record media, such as CD-ROM, and you may make it distribute or sell it.

[0131] It can obtain from other websites through the bookmark search engine 10 to which the gateway device 11 is connected. Furthermore, the software concerned is placed on the bookmark search engine 10, and you may make it download directly from the gateway device 11. Time information is memorized by actuation predetermined in the personal computer top with which the software with which the book marker 4 is realized was started by the user being performed.

[0132] Moreover, the program itself which operates the book marker 4 can be downloaded. For example, ROM91 is electrically constituted from an EEPROM (Electrically Erasable Programmable ROM) which can rewrite the content of storage, and it is made to make ROM91 memorize the program supplied through the interface 29 from the gateway device 11 etc. in the book marker 4.

[0133] If it carries out like this, according to an initial state, the book marker 4 can be changed into an usable condition by writing a program in ROM91 according to a predetermined procedure as a condition that it is memorized by no programs as for

ROM91.

[0134] For example, in the case of the book marker's 4 user registration, the book marker 4 is connected to the gateway device 11, and a terminal ID 27 is transmitted from the book marker 4 to the bookmark search engine 10 through the gateway device 11. If user registration is made normally, the program for the motion control of a bookmark 4 will be transmitted to the gateway device 11 from the bookmark search engine 10, and this program will be transmitted to the book marker 4 through an interface 29 from the gateway device 11. The transmitted program is written in ROM91 and made into a condition with the usable book marker 4.

[0135] In addition, you may make it make ROM91 memorize beforehand the bootstrap of CPU25, and the program of the communications control by the interface 29.

[0136] Moreover, it can respond to version up of the book marker's 4 motion-control program etc. by making ROM91 rewritable. For example, a program downloads from the network connected to the gateway device 11, the downloaded program is transmitted to the book marker 4, and the content of ROM91 is rewritten.

[0137] Thus, when a user chooses the program transmitted, the display of a display 21 etc. can make a user's favorite thing selectable, for example, and it is desirable.

[0138] In addition, the program of the book marker's 4 motion control can be transmitted from other sites connectable not only with the bookmark search engine 10 but the gateway device 11.

[0139] Furthermore, the book marker's 4 control program can also be distributed in the condition of it not having been restricted to download from the network, for example, having been recorded on record media, such as CD-ROM and a floppy (trademark) disk, as mentioned above. In the gateway device 11, reading appearance of the program recorded on these record media is carried out, it is transmitted to the book marker 4, and the content of ROM91 is rewritten.

[0140] Next, the application of the 1st gestalt of this operation is explained. In the application of the 1st gestalt of this operation, it is installed in an above-mentioned retail store etc. as a gateway device 11 else [, such as a personal computer which a user owns, ], and a user uses the information terminal unit made available.

[0141] This information terminal unit is installed in for example comparatively large-scale CD dealer, the so-called convenience store, etc., and is connected to a predetermined network. It enables it to obtain a user in the selected information by operating it according to the menu displayed on the screen of this information terminal unit. The acquired information can be acquired as record media, such as a check in a screen, a floppy disk, and CD-ROM. Moreover, it is also possible to transmit the acquired information to the information machines and equipment which prepared the predetermined interface in the information terminal unit, and the user brought and which have a corresponding interface as data directly. Below, this information terminal unit is called a "KIOSK terminal."

[0142] Since a KIOSK terminal is realizable with the configuration of a common

computer as shown in above-mentioned drawing 7 , and the same configuration as abbreviation, detailed explanation of a configuration is omitted. For example, a KIOSK terminal has a bus and CPU and memory are connected to a bus. Furthermore, the display and input interface for realizing GUI to a bus are connected, and it has mass storages, such as HDD, a data output means, the connecting means to a network, etc. further.

[0143] Although a graphic display is omitted, this KIOSK terminal and the above-mentioned bookmark search engine 10 are connected. Furthermore, the interface corresponding to the connector 22 prepared for the book marker 4 who mentioned above to this KIOSK terminal is established, and it carries out as [ be / between the book marker 4 and a KIOSK terminal / a data transfer / possible ]. By using this KIOSK terminal, even if the user does not own or possess the gateway device 11 by himself, he can use the search service using the book marker 4 who mentioned above.

[0144] A KIOSK terminal is always connectable with a communication line with a more nearly high-speed data transfer rate as compared with the network used at a general home. Moreover, storages, such as memory and HDD, can also carry a more nearly mass thing. Therefore, a user can receive different service from the case where a personal computer is used as a gateway device 11, by using a KIOSK terminal.

[0145] For example, memory with comparatively big storage capacity is carried in the book marker 4. This book marker 4 is connected to a KIOSK terminal, and music data are searched using a KIOSK terminal based on the time information memorized by memory 26. A display as shown in the display of a KIOSK terminal at above-mentioned drawing 10 is made. When the voice playback means is formed in the KIOSK terminal, it can reproduce and try listening the music data of a retrieval result with the voice playback means of a KIOSK terminal by operating a carbon button 58.

[0146] Moreover, the music data of a retrieval result are downloadable to the book marker 4 through a connector 22 by operating a carbon button 60. On the occasion of download at this time, if accounting is required, it is downloadable by investing the predetermined amount of money in the money input port further established in the KIOSK terminal. As for the downloaded music data, a user is behind transmitted to a personal computer, the music data regenerative apparatus of dedication, etc. In addition, when the music data to download carry out compression coding by the predetermined compression coding method, they can save memory space and download time amount, and are desirable.

[0147] As a compression coding method of music data, ATRAC2 and ATRAC3 which improved further MP3 (Moving Picture Experts Group 1 Audio Layer 3), and ATRAC (Adaptive Transform Acoustic Coding) and an ATRAC method, for example can be used. Moreover, not only these but PASC (precision adaptive sub-band coding), TwinVQ (trademark), RealAudio (trademark), LiquidAudio (trademark), etc. can also be used for a compression coding method.

[0148] At this time, by carrying the predetermined decoder and predetermined voice

playback means corresponding to a music data compression coding method in the book marker 4, it downloads, and is stored in memory, music data are decrypted, and it can reproduce. Thereby, a user can reproduce and enjoy the downloaded music data only using the book marker 4. The voice regeneration system using headphone etc. as a voice playback means can be considered.

[0149] In addition, when downloading music data to a bookmark 4 directly, the problem of the copyright of the downloaded music data may arise. This can be beforehand enciphered with a predetermined cipher system to the music data to download, and can be solved by making the device which decrypts the enciphered music data to the book marker 4 build in. For example, a decryption is made only when reproducing the enciphered music data by the book marker 4. Even if the music data downloaded to the book marker 4 are transmitted to a personal computer etc., unless the user has the key which solves this encryption with the available gestalt with the personal computer, it is made to be not possible [ a decryption ].

[0150] If a sale of Music CD etc. is possible for the retail store in which this KIOSK terminal is installed further again, as for a user, the music CD based on the retrieval result by the time information memorized by the book marker 4 can make purchase possible. For example, the order sheet based on a retrieval result is published, and a user brings this to a counter and places an order for it. The music CD based on a retrieval result can be directly discharged from a KIOSK terminal by including the cart system for conveyance of Music CD in a KIOSK terminal.

[0151] Next, the purchase of Music CD based on the retrieval of music data and the retrieval result based on the time information memorized by the book marker 4 by the 1st and 2nd gestalten of operation mentioned above is explained more concretely.

Drawing 20 and drawing 21 are flow charts which show roughly a process after a user receives the book marker 4 until it purchases Music CD. Drawing 22 – drawing 27 show the example of the display screen displayed on the gateway device 11 in connection with the flow chart of drawing 20 and drawing 21 . In addition, drawing 20 and drawing 21 are flow charts which show a continuous process, and “A” and “B” in drawing 20 show that a process shifts to the part where it corresponds in drawing 21 , respectively.

[0152] In order for a user to use the book marker 4, it is necessary to perform user registration to the book marker 4 who holds. In drawing 20 , when user registration can already be managed with the first step S30, it shifts to step S33. Although the book marker 4 is held, when user registration is not settled, the book marker 4 is connected to the gateway device 11 at step S31, and user registration is performed at step S32 according to predetermined actuation of the gateway device 11. The personal computer which a user possesses is sufficient as the gateway device 11, and the KIOSK terminal mentioned above is sufficient as it. If user registration is made, a process will shift to step S33.

[0153] If user registration is made to the book marker 4, at step S33, when bookmark

actuation, i.e., the musical piece included in mind etc., is heard by the user, a carbon button 20 will be pushed, and it will be directed to the book marker 4 so that the time information at that time may be memorized. As mentioned above, a carbon button 20 pushes and the time information which is a direction and is memorized is classified (step S34). In storage out of the area registered into user registration, a carbon button 20 continues being pushed beyond predetermined time (step S35). If it is the storage based on a radio broadcasting, a carbon button 20 will be pushed only once momentarily (step S36). If it is the storage based on television broadcasting, a carbon button 20 will be twice pushed into predetermined time (step S37). Thus, if a carbon button is pushed, the classification flag classified according to step S38 depending on how to push the time information on which the carbon button 20 was pushed, identification information, and a carbon button 20 will be memorized by the memory 26 of a bookmark 4.

[0154] If one or more and time information are memorized by the book marker's 4 memory 26, the memorized time information can be swept out in it from memory 26, and retrieval by the bookmark search engine 10 can be performed in it (step S39). Since it searches, in that, a process shifts to step S40. If the book marker 4 furthermore wants to memorize time information, a process will return to step S33.

[0155] As mentioned above, retrieval by the time information memorized by the book marker 4 is performed by the personal computer (PC) which a user possesses, and connecting the book marker 4 to this gateway device 11 by using a KIOSK terminal as the gateway device 11. If it searches by using as the gateway device 11 the personal computer which a user possesses, a process will shift to step S41. The book marker 4 is connected to a personal computer at step S41. Furthermore, in a personal computer, the Internet is accessed and the bookmark search engine 10 which refers to step S42 by the book marker 4 is connected to an available website.

[0156] The time information memorized by the book marker's 4 memory 26 from the book marker 4 to the personal computer is transmitted. Drawing 22 shows an example of the time information selection screen 200 displayed on a personal computer, when time information is transmitted to a personal computer. In this example, time information (1) – (9) memorized by the book marker 4 is transmitted to a personal computer, and the time and time of day when that time information was memorized about each of time information (1) – (9) are displayed on displays 201–209.

[0157] A user chooses the information on hope from these displays 201–209. For example, it determines by choosing the thing of hope from displays 201–209, and pushing the carbon button of a mouse by the cursor display to which the inside of a screen is moved in connection with pointing devices, such as a mouse, and a motion of a mouse. The selected information is transmitted to the bookmark search engine 10 from a personal computer with the book marker's 4 terminal ID 27. Transfer data have the configuration in which the classification flag corresponding to time information and its time information was considered as the pair by using a terminal ID



27 as a header.

[0158] Based on the time information and Terminal ID 27 which were transmitted, the title information on the musical piece currently broadcast at the broadcasting station which was associated and was registered into the terminal ID 27 at the time of day (and time) shown in time information is retrieved in the bookmark search engine 10. At this time, retrieval is suitably performed from a radio station and a television station corresponding to the transmitted classification flag. When a television station is made applicable to retrieval, the musical piece used as the theme song and insertion song of a musical piece and a drama program which do not stop at the musical piece broadcast in the music program among television broadcasting, for example, are used by commercial broadcast can also be made into the object of retrieval.

[0159] When a classification flag is a flag which shows the outside of area, it is related with a terminal ID 27, and it was registered, for example, let what was broadcast at the broadcasting station which exists out of range be the object of retrieval from a user's area information based on a user's zip code etc.

[0160] The retrieval result obtained by the bookmark search engine 10 is transmitted to a personal computer. Drawing 23 shows an example of the retrieval result display screen 210 displayed on a personal computer based on the transmitted retrieval result. In this example, in above-mentioned drawing 22, the time information (2) of display 202 is chosen by the user, and retrieval of musical piece information is made at the bookmark search engine 10 based on the selected time information (2). The acquired musical piece information 211, 212, and 213 is displayed as a result of retrieval.

[0161] That is, it is obtained as a retrieval result that the musical piece shown in the musical piece information 211, 212, and 213 at a broadcasting station "AAAA", a broadcasting station "ABCD", and a broadcasting station "BBBB" at 12:0 a.m. on October 18, 1999 shown in time information (2), respectively was broadcast. A user's possibility of having listened to which musical piece among these, and having operated the book marker's 4 carbon button 20 at the time of day shown in time information (2) is high.

[0162] In addition, when a user operates the book marker's 4 carbon button 20, actuation of a carbon button 20 is not necessarily performed at the flash when the user heard at and was pleased. It is also considered enough that a carbon button 20 is operated after a musical piece finishes. Therefore, in the bookmark search engine 10, when some margin is given to the broadcasting hours of a musical piece in the case of retrieval of musical piece information, it is more desirable. In this case, the musical piece information for two music is displayed like display 217.

[0163] A user judges whether presenting of the musical piece information 211, 212, and 213 on this retrieval result screen 210 is seen, and there is any musical piece which he listened to at the time of day shown by time information (2), and made the

book marker 4 memorize (step S43). The LISTEN carbon button 215 arranged on the interior of presenting of the musical piece information 212, 213, and 214 is operated to try listening a musical piece (step S45). Actuation of the LISTEN carbon button 215 displays the audition screen 220 for trying listening the musical piece in which an example is shown on drawing 24 .

[0164] That is, actuation of the LISTEN carbon button 215 transmits from a personal computer which carbon button 215 was operated among the displays of the musical piece information 212, 213, and 214 to the bookmark search engine 10. Here, the LISTE \*\* carbon button 215 of the musical piece information 213 should be operated, for example. Based on the transmitted information, the information on Music CD that the musical piece concerned was recorded by the database 1 is retrieved in the bookmark search engine 10. As the information on the searched music CD is transmitted to a personal computer and an example is shown in the audition screen 220, the accompanying information on the music CD, such as a musical piece name recorded on the music CD, is looked through and displayed on CD information-display section 221.

[0165] In the example of drawing 24 , the control unit for controlling playback of a musical piece is allotted on the right-hand side of CD information-display section 221. By operating the PLAY carbon button 222, it can try listening the musical piece corresponding to the operated above-mentioned LISTEN carbon button 215. A user's actuation of the PLAY carbon button 222 transmits the information which shows that to the bookmark search engine 10. For example, music data are stored in the database 1 of the bookmark search engine 10, and the music data corresponding to the musical piece information chosen from the bookmark search engine 10 as the personal computer are transmitted.

[0166] In addition, you may make it transmit music data from other websites to which the book KAKU search engine 10 was connected in the network.

[0167] A user tries listening the transmitted music data by the voice playback means 39 and loudspeaker 90 which were prepared in the personal computer (step S46). In addition, in drawing 24 , a control unit 223 is a volume slider for adjusting the sound volume of a playback sound. Moreover, it is desirable, when a limit is prepared in the die length reproduced among the performance time amount of a musical piece in an audition, for example, for 15 seconds after the head and important section of a musical piece is reproduced.

[0168] In addition, although he is trying to try listening the musical piece at step S45 with the flow chart of drawing 21 after judging whether there was any desired musical piece at step S43, you may make it judge whether there was any desired musical piece by trying listening a musical piece. Moreover, at step S43, when the musical piece information on desired is not acquired as a retrieval result, as shown in step S44, retrieval conditions etc. can be set up by the manual and musical piece information can be acquired.

[0169] It is expected of the purchase of a desired musical piece by the user out of the musical piece information 211, 212, and 213 on a retrieval result (step S47). This is directly made from the displayed musical piece information 211, 212, and 213 based on the result of an audition of step S46. Although the purchase of a musical piece is mentioned later, it is made by purchasing the music CD on which the musical piece was recorded, for example. Not only this but the purchase of a musical piece unit is possible.

[0170] When immediately not purchasing a musical piece, the purchase of a musical piece can be suspended (step S48), and a retrieval result can be saved. When suspending the purchase of a musical piece, the musical piece information on a retrieval result can be saved in the website of the bookmark search engine 10 (step S49). On the retrieval result screen 210, the musical piece information on a retrieval result is saved with the information of a user called a terminal ID 27 in the database 2 in the bookmark search engine 10 by operating the SAVE carbon button 224 in each musical piece information 211 and 212 and the SAVE carbon button 215 in 213, and the musical piece information—display screen 220.

[0171] If the SAVE carbon button 215 or the SAVE carbon button 224 is operated, while the preservation screen 230 in which an example is shown will be displayed on drawing 25 and the information 231 on the musical piece saved by the actuation will be displayed, the information on the musical piece saved by the user is shown by list. In this preservation screen 230, it can try listening a corresponding musical piece by operating the Listen carbon button 233. Moreover, the purchase of a corresponding musical piece can be directed by operating the Buy carbon button 232. Furthermore, by operating the Delete carbon button 234, the information on a corresponding musical piece can be eliminated from this preservation screen 230, and preservation of that musical piece can be canceled.

[0172] The purchase of a corresponding musical piece can be directed by operating the BUY carbon button 216 of the retrieval result display screen 210, the BUY carbon button 225 of the audition screen 220, or the Buy carbon button 232 of the preservation screen 230. The information on a musical piece that purchase was directed is related with the information of a user called a terminal ID 27, and is once stored in the predetermined memory area of the bookmark search engine 10 (step S50). This memory area is called a shopping cart.

[0173] Drawing 26 shows an example of the shopping cart screen 240 which displays the content of the shopping cart. A user wishes to purchase and list 241 is displayed for the information on Music CD that the musical piece stored in the shopping cart and its musical piece were recorded. A user can choose from this shopping cart screen 240 the dealer which purchases Music CD actually (step S51). Let the dealer which can place an order for Music CD on a network be a manual operation button to be registered and for carbon buttons 242A, 242B, and 242C move [ plurality and ] to the website of each dealer in this example. By operating these carbon buttons 242A–

242C, a user can move to the website of a favorite dealer and can purchase Music CD.

[0174] In addition, although a graphic display is omitted, the edit display which performs the addition and deletion of Music CD of a dealer which were registered can be displayed by operating a carbon button 243.

[0175] As an example, the example at the time of operating carbon button 242C is explained. If carbon button 242C is operated, it will be moved to the website of "CDSHOP C" from the website of the bookmark search engine 10 (step S52).

Drawing 27 shows the purchase screen 250 of an example at the time of moving to the website of "CDSHOP C." In this example, 2 \*\*\*\*s of the purchase screens 250 are carried out up and down, and an upside is used as Screen 251 of the website of the bookmark search engine 10, and let the bottom be Screen 252 of the website of "CDSHOP C."

[0176] The data stored in the shopping cart of the book marker search engine 10 are transmitted to the website of "CDSHOP C" as it is, and are displayed on the list 253 of purchase goods. If a user judges whether a price is suitable (step S53) and is judged to be suitable based on the price information of each music CD displayed on the list 253, he will direct the purchase of the music CD displayed on the list 253 at step S54. For example, the music CD which corresponds, respectively can be placed an order for and purchased to "CDSHOP C" by operating the BUY carbon buttons 254A, 254B, 254C, and 254D. The payment of a price registers the number of a user's credit card etc. into "CDSHOP C" beforehand, for example, and pulling down by the card performs it.

[0177] In addition, at the above-mentioned step S53, when the shown price is not suitable, a process is ended. Moreover, as shown to drawing 21 by the dotted line, return and a different dealer can also be chosen as the shopping cart screen 240.

[0178] On the other hand, at the above-mentioned step S40, when a KIOSK terminal is chosen, a user connects the book marker 4 to the predetermined connection terminal of a KIOSK terminal through a connector 22 (step S55). The time information memorized by the book marker 4, identification information, a classification flag, and a terminal ID 27 are transmitted to a KIOSK terminal from the book marker 4. Based on such transmitted information, musical piece information is retrieved in a KIOSK terminal, and the presentation to the user of a retrieval result, the audition of a musical piece, the check of the existence of the intention of the purchase of Music CD, etc. are performed using predetermined GUI (Graphical User Interface) displayed on the display of a KIOSK terminal.

[0179] If the musical piece and musical piece information on desired are found (step S56), it will judge whether the price of the music CD on which the musical piece was recorded is suitable at step S53 mentioned above. If suitable, a user will purchase the music CD at step S54. In this case, since things are assumed when the KIOSK terminal is installed for example, in CD dealer, that music CD can be purchased as it

is so that a desired musical piece is searched, and Music CD may be purchased in the usual procedure in CD dealer, if the title and CD number of Music CD on which that musical piece was recorded are known.

[0180] Next, the 2nd gestalt of implementation of this invention is explained. With the 1st gestalt of operation mentioned above, although the object for retrieval in the bookmark search engine 10 was only the musical piece broadcast by the radio broadcasting and television broadcasting, it is taken as the object of retrieval of the goods in television broadcasting broadcast by commercials by the 2nd gestalt of this operation.

[0181] Drawing 28 shows the configuration of an example of the retrieval system by the 2nd gestalt of this operation. In addition, in drawing 28, the same number is given to the part which is common in the configuration of drawing 2 mentioned above, and detailed explanation is omitted. With the 2nd gestalt of this operation, since the goods broadcast by commercial broadcast are made applicable to retrieval, an advertiser 500 exists. Moreover, an advertiser 500 requests work of the commercials broadcast by the advertising agency 502, and can consider that an advertising agency 502 offers commercials to a broadcasting station 12.

[0182] An advertiser 500 has introduction of the goods which he advertizes by above-mentioned commercials, and the website 501 to which the user who accessed enabled it to purchase the goods on the Internet. The website 501 is made accessible from the gateway device 11.

[0183] On the other hand, in the bookmark search engine 10, the database 1 in above-mentioned drawing 2 is broadcast contents database 1', and a database 2 becomes customer database 2'. The play list which the broadcast time of day of the program broadcast at a broadcasting station 12 described is stored in broadcast contents database 1'. Only the information about the commercials it is broadcast at a broadcasting station 12 that play lists are may be described.

[0184] It is related with a further above-mentioned play list, and the advertiser name which are URL of an advertiser's 500 website 501 mentioned above and an advertiser's 500 identifier is stored, it is related with broadcasting hours by broadcast contents database 1', and the trade name advertized by commercials is stored in it further again. That is, in broadcast contents database 1', the trade name advertized by the commercials broadcast by the broadcasting hours used as URL and the key of advertiser's 500 identifier and an advertiser's 500 website 501 can be acquired as a retrieval result by searching by using broadcast time of day as a key.

[0185] The terminal ID 27 for every book marker 4 and the data of the book marker's 4 user are stored in customer database 2' like the 1st gestalt of above-mentioned operation. Moreover, the information about a user's taste of a user's favorite radio station, a favorite TV program, etc. which are registered with the terminal ID 27 is also storable in customer database 2' further.

[0186] With the 2nd gestalt of this operation, the interface 503 which enabled it to

update easily the predetermined information stored in broadcast contents database 1' from the exterior is formed in the bookmark search engine 10. For example, an advertiser 500 can update the information about the commercials which the him of the play list stored in broadcast contents database 1' offers through this interface 503. It may be made to perform updating by this advertiser 500 through an advertising agency 502. Moreover, a broadcasting station 12 can update the play list about the content which a broadcasting station 12 broadcasts through an interface 503.

[0187] The database management system which was made to perform access restriction through the predetermined filter can constitute such an interface 503 to access from the outside for example, to broadcast contents database 1'. Moreover, an interface 503 is more desirable when the client of the exterior where access was permitted to broadcast contents database 1' has GUI whose updating was easily enabled in the content of broadcast contents database 1'.

[0188] When the commercials which want to know information by television broadcasting, worrisome commercials, etc. are broadcast, a user operates the book marker's 4 carbon button 20, and makes the book marker's 4 memory 26 memorize time information in such a configuration. Behind, a user connects the book marker 4 to the gateway device 11, and transmits the time information memorized by memory 26 to the gateway device 11 from a bookmark 4 with a terminal ID 27 etc. These time information and a terminal ID 27 are further transmitted to the bookmark search engine 10 from the gateway device 11.

[0189] With the transmitted terminal ID 27, an user validation is performed and broadcast contents database 1' is searched with the bookmark transfer engine 10 based on time information. The trade name currently broadcast by URL and the commercials of advertiser's 500 identifier which searched database 1' and was acquired, and an advertiser's 500 website 501 is transmitted to the gateway device 11.

[0190] A user can acquire required information about the commercials currently broadcast at the time of day shown by the time information which the book marker 4 was made to memorize using information, such as a trade name currently broadcast by URL and the commercials of advertiser's 500 transmitted identifier, and an advertiser's 500 website 501. Moreover, since URL of an advertiser's 500 website 501 can be known, a website 501 can be accessed using the gateway device 11, and the information on other goods that OK and an advertiser 500 treat the information on still more detailed goods can be acquired.

[0191] Moreover, if the purchase of goods is possible for the website 501 and it is made, a user can order goods from on the gateway device 11 to an advertiser 500.

[0192] Furthermore, if the information about a user's taste is stored in customer database 2', an advertiser 500 can know the taste of the user who has accessed the website 501 by searching customer database 2', and will become possible [ offering information related to a user ].

[0193] In addition, in the example of the 1st gestalt of above-mentioned operation, by

pushing a carbon button 20 twice into predetermined time, a classification flag becomes a thing corresponding to television broadcasting, and storage of the time information by television broadcasting can be distinguished by the bookmark search engine 10. By using this, it is possible to reconcile the retrieval system by the 2nd gestalt of this operation and the musical piece data retrieval system by the 1st gestalt of operation mentioned above.

[0194] For example, the 1st control unit which makes the book marker 4 memorize the time information by the radio broadcasting, and the 2nd control unit which makes the time information by television broadcasting memorize are prepared, and the classification flag about a musical piece and the classification flag about commercials are generated by pushing apart the 2nd control unit, respectively. It becomes possible to distinguish by the bookmark search engine 10 side about whether he wants to know the information on the goods currently advertized [ that a user wants whether to know the information on the musical piece used by commercials also by the time information the broadcast time of day of commercials was remembered to be, and ] by commercials.

[0195] With the 2nd gestalt of this operation, the flow of money may occur between an advertiser 500, a broadcasting station 12, the bookmark search engine 10, and a user. Drawing 29 shows roughly the flow of the money generated in the 2nd gestalt of this operation.

[0196] First, the charge M1 of a commercial occurs between a broadcasting station 12 and an advertiser 500. The charge M1 of a commercial moves to a broadcasting station 12 from an advertiser 500. Moreover, when a user accesses an advertiser's 500 website 501 and purchases goods further using the information acquired by the bookmark search engine 10, the service charge M2 of the bookmark search engine 10 occurs. A service charge M2 moves to the bookmark search engine 10 from an advertiser 500. Using the information acquired from the bookmark search engine 10, migration of a service charge M2 can also generate that the user accessed the website 501. Furthermore, when a user accesses to a website 501 for the information acquired from the bookmark search engine 10 and purchases an advertiser's 500 goods, the price M1 of goods is paid from a user to an advertiser 500.

[0197]

[Effect of the Invention] As explained above, according to this invention, the information corresponding to the time of day when the carbon button was pushed is memorized by the book marker by pushing the carbon button prepared for the book marker. It is effective in the ability to be able to acquire the information on the contents currently broadcast at the broadcasting station when a book marker's carbon button was operated by transmitting the information corresponding to this time of day to the bookmark search engine which consists of a database with which the database with which the play list with which the broadcast time of day of the contents and contents of each broadcasting station was associated is accumulated,

and the related information of contents and its contents were associated and accumulated.

[0198] Moreover, since the situation of a transfer uses GUI and is graphically displayed, in case the information corresponding to time of day memorized by the book marker is transmitted to a gateway device according to the 1st gestalt of implementation of this invention, A user has the effectiveness that it can be enjoyed also visually in \*\*, when it can grasp intuitively that the information memorized by the book marker was transmitted to the gateway device.

[0199] Furthermore, since it can try with a gateway device listening the musical piece chosen from the retrieval result searched with the bookmark search engine based on the information corresponding to the time of day memorized by the book marker according to the 1st gestalt of this invention, a user is effective in the ability to check directly the contents currently broadcast when he made a book marker memorize information.

[0200] According to this invention, a user can move to the site which can purchase the contents concerned by performing predetermined actuation to a gateway device further again based on the retrieval result of having referred to the bookmark search engine using the information corresponding to the time of day memorized by the book marker. Therefore, a user has the effectiveness which can purchase the goods included in its mind etc. even from fragmentary storage.

[0201] Moreover, since the contents currently broadcast at the time of day memorized by that bookmark as a retrieval result searched with the bookmark search engine based on the information corresponding to the time of day memorized by the book marker and the contents currently broadcast before in time than these contents are obtained according to the 1st gestalt of this invention, it is effective in the ability to have allowances in actuation of a book marker.

[0202] Furthermore, since the interface which can change from the exterior the information stored in the database is established to the bookmark search engine according to the 2nd gestalt of this invention, the content of the database can be easily changed by the advertiser of goods, an advertising agency, a broadcasting station, etc., and it is effective in the ability to respond to modification of contents flexibly.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] It is approximate line drawing showing the information retrieval system by this invention roughly.



- [Drawing 2] It is approximate line drawing showing an example of the musical piece data retrieval structure of a system by the 1st gestalt of operation.
- [Drawing 3] It is approximate line drawing showing an example of a play list.
- [Drawing 4] It is approximate line drawing showing an example of the appearance of the additional terminal by the 1st gestalt of operation, i.e., a book marker.
- [Drawing 5] It is the block diagram showing an example of the configuration of the book marker by the 1st gestalt of operation.
- [Drawing 6] It is approximate line drawing showing the example of the time information memorized by a book marker's memory.
- [Drawing 7] It is the block diagram showing an example of the configuration of a gateway device.
- [Drawing 8] An example of a display a book marker's registration screen which the user and user by the gateway device own is shown.
- [Drawing 9] It is the flow chart of an example of the contents retrieval processing by this invention.
- [Drawing 10] It is approximate line drawing showing an example of the display screen of the gateway device by the 1st gestalt of operation.
- [Drawing 11] It is approximate line drawing showing the gestalt of a book marker's example.
- [Drawing 12] It is approximate line drawing showing signs that a cradle is equipped with the appearance and bookmark of an example of a cradle.
- [Drawing 13] It is approximate line drawing showing the example of a display of the display at the time of a transfer of time information.
- [Drawing 14] It is approximate line drawing showing the modification of the gestalt a book marker's example.
- [Drawing 15] It is approximate line drawing showing other modifications of the gestalt a book marker's example.
- [Drawing 16] It is approximate line drawing showing the modification of further others of the gestalt of a book marker's example.
- [Drawing 17] It is approximate line drawing showing the example of other gestalten of a book marker.
- [Drawing 18] It is approximate line drawing showing the example of the gestalt [ of a book marker ] of further others.
- [Drawing 19] It is approximate line drawing showing another example of a book marker's gestalt.
- [Drawing 20] It is the flow chart which shows roughly a process after a user receives a book marker until it purchases Music CD.
- [Drawing 21] It is the flow chart which shows roughly a process after a user receives a book marker until it purchases Music CD.
- [Drawing 22] When time information is transmitted to a personal computer, it is approximate line drawing showing an example of the time information selection screen

displayed on a personal computer.

[Drawing 23] It is approximate line drawing showing an example of the retrieval result display screen displayed on a personal computer based on the transmitted retrieval result.

[Drawing 24] It is approximate line drawing showing an example of the audition screen for trying listening a musical piece displayed on a personal computer.

[Drawing 25] It is approximate line drawing showing an example of the preservation screen for saving musical piece information displayed on a personal computer.

[Drawing 26] It is approximate line drawing showing an example of the shopping cart screen which displays the content of the shopping cart.

[Drawing 27] It is approximate line drawing showing an example of the purchase screen at the time of moving to the website which can purchase Music CD.

[Drawing 28] It is the block diagram showing the configuration of an example of the retrieval system by the 2nd gestalt of operation.

[Drawing 29] It is approximate line drawing showing roughly the flow of the money generated in the 2nd gestalt of operation.

[Description of Notations]

1 ... The database with which the play list by broadcast media is accumulated, 2 ... The database, 3 in which the information about contents is accumulated ... Search engine, 4 ... A book marker (additional terminal), 5 ... Location information, 6 ... Broadcasting station information, 7 ... Time information, 10 ... A bookmark search engine, 11 ... Gateway device, 20 ... A book marker's input section, 21 ... A display, 22 ... Connector, 25 [ ... Timer, ] ... CPU, 26 ... Memory, 27 ... Terminal ID, 28 29 ... An interface, 31 ... CPU, 37 ... Interface, 38 ... Means of communications, 40 ... A registration screen, 103 ... Cap, 110 ... A cradle, 200 ... A time information selection screen, 210 ... Retrieval result display screen, 220 [ ... A purchase screen, 500 / ... An advertiser, 501 / ... A website, 502 / ... An advertising agency, 503 / ... Interface ] ... An audition screen, 230 ... A preservation screen, 240 ... A shopping cart screen, 250

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